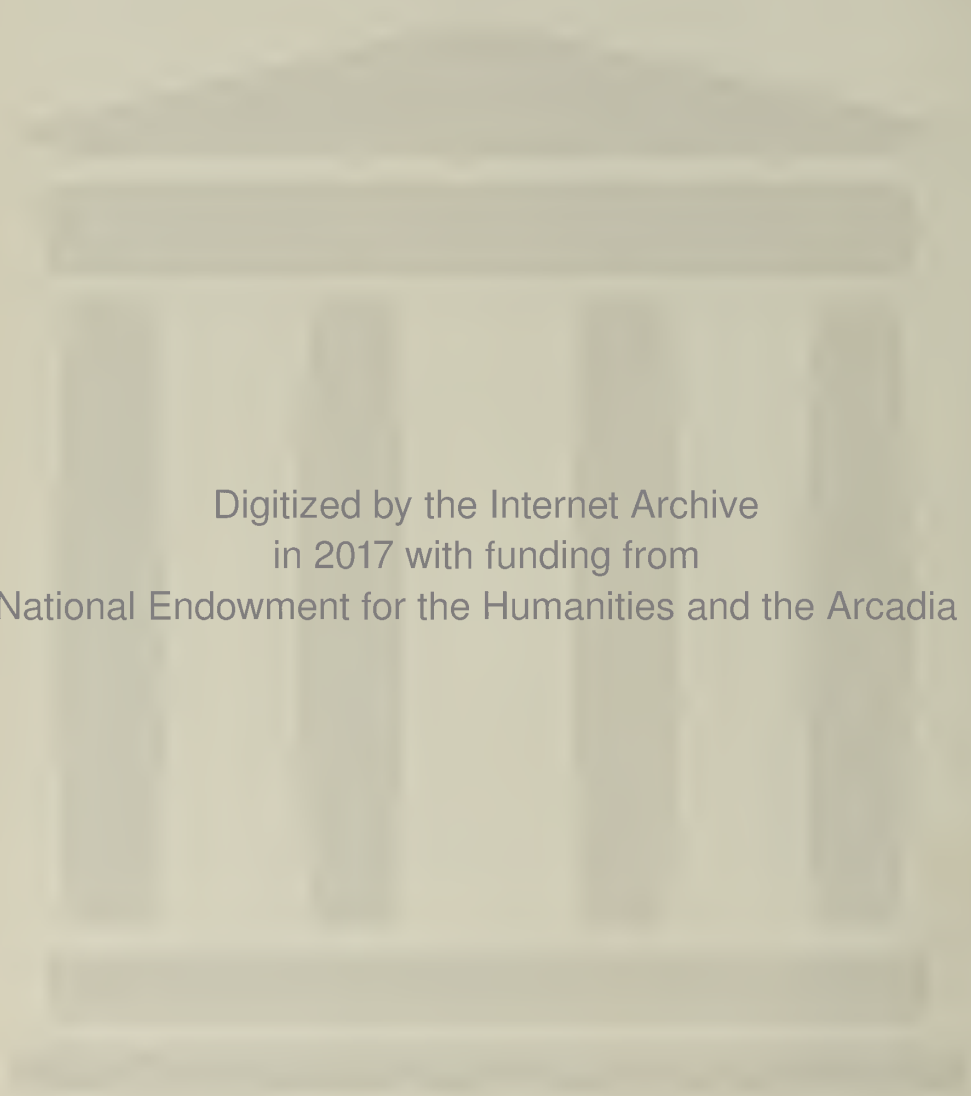


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INDEX

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Editor: RALPH R. SIMMONS, M.D., Des Moines

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The JOURNAL

of the

Iowa State Medical Society

VOL. XX

DES MOINES, IOWA, JANUARY, 1930

No. 1

---And a Prosperous New Year

Another year has gone, and we are forcefully reminded that time, in its irresistible march, must be used as it passes if we are to succeed. It would appear opportune, as we cross the threshold of a new year, to look back upon the accomplishments and failures of the old year, and with this vision before us, lay definite plans for the new year upon which we are entering. Our State Society has enjoyed a most prosperous year in 1929, and our officers look forward to bigger and better things in 1930—but let them tell the story.

The President

1929

The Iowa State Medical Society is moving forward to that position of leadership which it should maintain in all matters pertaining to health and medical practice.

The State Society is so dependent upon the interest and the activity of its unit of organization—the county medical society—that every proper effort should be exerted to strengthen this basic group. The close of 1929 showed that more than 77% of the registered physicians in the State were affiliated with organized medicine. This is a very enviable record but it can be bettered by a concerted effort to bring every eligible physician into our ranks. A special appeal along this line was directed to the young physician in the President's Message in the November issue of the JOURNAL and it attracted considerable favorable comment.

Having obtained his membership, it then becomes our obligation to make his society connection worthwhile. To that end two distinct services have been offered. First, a Program Bureau has been formed in the state office for the express purpose of offering interesting and well balanced programs for county society meetings. It is nec-

essary to indicate only the kind of program desired and the order will be filled. Second, the county contract for the care of the indigent sick furnishes a very attractive solution for an old problem. Many county societies are discussing the matter besides six or eight which have already entered into a satisfactory agreement with their County Boards.

Our relations with the State Department of Health, the College of Medicine of the State University and the various voluntary health agencies continues mutually helpful and cooperative.

Some of our counties are becoming deeply interested in the County Health Unit which was made possible by a recent act of the state legislature. Two counties in Iowa have thus far adopted the plan and two more counties are now making the preliminary survey incidental to presentation of the plan to the public. A general plan of procedure has been prepared for those who may wish to stimulate interest in the Unit in their own counties.

The Conference of County Medical Society Officers held in Des Moines in November was very largely attended and fine interest was mani-

fested in the excellent program presented. Many of those in attendance have expressed themselves as heartily in accord with this form of instruction. It has been suggested that future conferences should include a symposium on the county society problems, such as membership, attendance and programs. Too many topics were included for discussion at this meeting, a feature which should be avoided in the future.

The JOURNAL has been improved mechanically and editorially during the past year. Our editor has made a fine effort to better the quality and he has admirably succeeded.

The business routine of the state office has been systematized and to a certain extent departmentalized. Any required information can be quickly obtained and most courteous attention is given to all the numerous problems that members of the society bring to the office staff.

1930

The State Society must continue to hold an advanced place in all the things for which it stands. This enthusiastic body of progressive physicians should continuously wield a tremendous power in all health matters, public and professional. There are many fine projects which should have our most careful consideration during the coming year.

The Lay Education Bureau has a splendid future for service as soon as the numerous lay organizations discover that we are in a position to furnish interesting and authoritative health information. These addresses are planned for all sorts of audiences. Talks at high school assemblies are no doubt the greatest opportunity for mass instruction. Such audiences are composed of persons of even age and similar intellectual attainments. Young people are usually very appreciative of a well presented message of health. Even modest stimulation of invitations for these talks invariably brings a good response.

The State University College of Medicine is now ready to give extramural postgraduate instruction in gynecology, obstetrics and pediatrics upon specific invitation of the county medical society. These courses are carefully planned to be of the maximum benefit to the general practitioner. It is hoped that many counties will request this clinical work very soon.

From the standpoint of the present officers of your state society whose terms of office expire next May, the program for the annual meeting at Marshalltown is the culmination of their efforts. Several innovations will be offered this year with the hope that some of them will prove worthy of further trial.

The House of Delegates will be called to meet on Tuesday preceding the first day of the annual session on Wednesday. It is believed that this change will meet with general approval, as members are thus permitted to attend most of the scientific meetings. Furthermore, this special meeting is desirable on account of the unusual amount of routine business dependent upon the proposed changes in the Constitution and By-Laws. For the instruction and guidance of the House of Delegates a handbook is in process of preparation. This will be mailed to all members of the House of Delegates a few days in advance of the annual meeting and should serve to expedite the business affairs of the society.

The Program Committee has arranged for two forty-five minute dry clinics in medicine and surgery each morning; a two-hour school of instruction for the head surgery section on Wednesday afternoon; a scientific exhibit in connection with the technical exhibit; symposia on fractures, medical economics and other topics, besides an unusually interesting schedule of papers on general subjects. The section chairmen are giving a great deal of time to the development of these unusual features. They are Dr. E. M. Meyers, Boone, Surgery; Dr. L. R. Woodward, Mason City, Medicine; and Dr. Fred W. Bailey, Cedar Rapids, Head Surgery.

Marshalltown physicians are preparing to give us a splendid social time; they promise adequate hotel facilities and excellent meeting places; they expect the largest registration a state society meeting has ever had.



John H. Peck

President

The Board of Trustees

1929

The year 1929 has been marked by greatly increased service rendered through the state organization to the profession of the state, the component county societies and the members. This program has been made possible by an increase in income, sufficient to take care of the necessary overhead and other expenses incidental to rendering these services.

At the January 1929 meeting, the Board of trustees found it advisable to move the offices of the State Society into new and larger quarters, affording office space for the editor of *The JOURNAL* and some additional clerical help necessitated by the expanding activities of the various committees. Adjustments in the salaries of both the secretary and editor have been made, and at the first meeting of the Board following the annual session, the managing director was re-employed for a second year.

The Board of Trustees feel that the conduct of society affairs during the past year under a full-time Managing Director fully meets their expectations, and that the money spent for his salary is fully justified in accomplishment. It would be possible to secure such an employee for almost any sum agreed upon, but the Board has felt that the economical procedure was to secure the largest possible amount of training, experience and ability purchasable within the means of the society. A \$3,000 executive might be expensive and a \$10,000 one inexpensive. The only practical measure of the success of the principle here involved is the returns secured from the money invested in the present enlarged program of the state society.

The Managing Director's work is divided almost evenly between four activities, Journal, Legislation, Business Manager, and Executive Secretary. By the terms of his employment, the Managing Director was to act as assistant to the editor and to take charge of the business affairs of *The JOURNAL*. The year preceding the employment of a Managing Director, Journal and reprint charges were approximately \$1,600 more than our income. During the first year under a business management, this deficit was turned to a profit of \$100, so that

the society made an actual gain of \$2,600 on this one item alone.

During the three months of the Forty-third General Assembly, the Managing Director devoted most of his time towards furthering the enactment of needed laws, working under the direction of the legislative committee. Three measures which the Legislative Committee endorsed were enacted into law: The Workman's Compensation Amendment, which increased the limit for hospital and professional services from two hundred dollars to three hundred dollars; The County Health Unit Law, which specifies that three of the eleven on a county board of health must be members of the county medical society; and the creation of an Inspector in the State Department of Health, who has already ended many flagrant cases of violation of the Medical Practice Act.

Various economies in the handling of records, purchasing of printing, etc., have been effected; and the income of the society has been increased through the secur-

ing of additional members (about \$500), and the conduct of the annual session, especially the commercial exhibits, which will bring the state society a return of between \$500 and \$1000.

As assistant to each of the officers of the state society and as executive secretary to the boards and standing committees, the Managing Director has rendered a most valuable service to the society. The Scientific Program Bureau, under his management, is assisting county societies in arranging programs, while the Speakers Bureau is sending members of the state society to speak before lay organizations so that fewer faddists will be pressing their propaganda from the platform. A large amount of important clerical and detail work is being done for the various standing committees, especially those on Medical Economics and Medical Education and Hospitals.

The important fact is that these services have cost us nothing, since the increase in revenue as outlined has taken care of the increased expenses. The society lived within its income during the year ending April 30, 1929, and had a surplus of \$2,000.



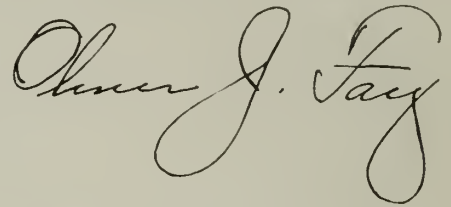
1930

Increased income is in prospect for 1930 which should fully offset the cost of the enlarging activities of the society. Further attention to membership should augment our income from that source. Advertising rates in The JOURNAL are being increased and additional advertisers have been secured for 1930. A new contract for printing The JOURNAL will save several hundred dollars. The state society is to have entire charge of all commercial exhibits at the annual session, which will further increase income.

It is hoped that the office of the Iowa State Medical Society may continue to answer all calls for service, whether from a component society or from individual members. It is imperative that the various standing committees be given every possible assistance so that the volunteer members may more efficiently serve the profession in working out those problems in the field of economics and those having to do with the university hospital, which are so vital to the future welfare of medical practice in this state.

There should be a continued interest in politics and legislative matters. The various county societies should deliberately set about to improve their relationship with lay organizations and authorities.

Very serious attention should be given the question of revising our Constitution, as that matter is to come before the 1930 House of Delegates. The model state constitution as proposed by the American Medical Association was introduced in the House of Delegates in the last session, and is to be voted upon next May. The Board of Trustees have not yet voiced an official opinion relative to the desirability of the model constitution, but feel that the matter warrants most serious study.



Chairman of the Board of Trustees.

The Secretary

1929

The Iowa State Medical Society organized in 1850, and reorganized in 1903, is entering upon its eightieth anniversary. During this time, it has stood for the best in medicine in this commonwealth. Since the election of Doctor Enos Lowe, as its first president, the society has flourished under the leadership of many fine men, who had the science, the art and the idealism of medicine close to their hearts. A glance at the names of the past presidents will readily bear out such a statement. A meeting has been held annually since the organization of the society with two exceptions, the years of 1862 and 1863, when many members were engaged in the Civil War. The heritage which the founders of our society passed on to succeeding generations of medical men was of the highest order and so far no blemish of note has ever appeared on the society's escutcheon. Few, indeed, are to be found among our present members who link the past with the present. Of these survivors, without question, the most outstanding is Doctor David Sturgess Fairchild, Sr., of Clinton, to whom the society

owes much and to whom it is deeply indebted for many of its present policies.

For over half a century the Iowa State Medical Society carried on its work in peace and harmony. During the early years of its existence many of its members underwent hardships and privations such as were commonly entertained by those who early settled in this state. Following the Civil War and the period of reconstruction, medicine turned its attention more to the cause of disease than to its effects. Progress was noted all along its various branches, and it is not to be wondered that reorganization should later take place within its ranks. Consequently we find in 1903, the society changed its policies, insisted on retaining the dominating hand in medical affairs and granted charters to the county medical societies. While some misunderstandings and hard feelings naturally emanated from the reorganization, it is proper to state that much good accrued from the action and as a result ninety-seven component county societies sprang into legitimate existence, and as such have since maintained their integrity. Each and every one of these county



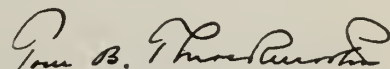
societies are active, some of course to a greater and others to a lesser degree. In the rather sparsely settled districts county medical meetings are not as often held, nor as well attended, as are those meetings in places where the membership is greater and more compact.

In 1916 there were about 2200 physicians who were members of the Iowa State Medical Society. At that time there were upwards of some 4500 physicians in the state. Gradually the membership of the society increased until at present there are about 2400 names on the membership roll. At first glance this may not seem to be much of an increase, but when it is recalled that the physicians living in the state today are only a little over 3000 in number, it can be readily seen that our membership percentage speaks well for itself. Each member is entitled to all the rights and privileges of organized medicine in Iowa, receives each month the Journal of the Iowa State Medical Society, is guaranteed legal advice and counsel in case of malpractice proceedings, and may take part in the scientific session at the annual session of the society. For all of which the sum of seven dollars and a half is asked in return.

1930

It may be asked to what greater degree can one expect organized medicine to develop in Iowa. Has the society reached its zenith? Has it fulfilled its obligations to its members? Is it accomplishing everything which organized medicine should accomplish? These are some of the problems which only the future can solve. Those who have watched the development of the institution

through the past two scores, or more, of years, are well satisfied in the main with what has been accomplished. They do not believe the zenith of usefulness has yet been reached. They do feel that the society has accomplished much and as an organized and functioning body stands well to the front with our sister state societies. Some there are who feel a revision of governing laws must take place before the society can take on a new era of usefulness. There was introduced in the House of Delegates at the last annual session a motion to revise the present constitution following a plan suggested by the American Medical Association under the caption "The Model State Constitution." The matter will be subject to vote in the House of Delegates at the 1930 session. Careful consideration should be accorded this proposal by each component society. Each delegate should come prepared to approach this important and vital problem with an open mind, until both sides of the proposition have been fully presented. As one who has watched with more than ordinary interest the growth and development of medicine in Iowa during the past nineteen years, it is safe to predict that whatever the future holds for this society, the institution will survive and maintain its prestige among the other forty-eight societies in these United States, which help to form our national society, the American Medical Association.



Secretary.

The Council

1929

The constitution provides that the Council shall inquire into the condition of the profession and improve and increase the zeal of the county society and its members. As we are constituted at the present time, this is the primary function of the Council. On careful thought it will be appreciated that this is a rather comprehensive and far-reaching task—one almost without end—for new interests are constantly appearing that demand the active interest of every practitioner. None can deny that there is a markedly increased inclination among physicians to interest themselves in medical matters that will advance the position of the profession as a whole, and a continuation of this cooperation is vital to the progress of organized medicine.

The Council has stressed the importance of reporting the transactions of the state officers to the individual members. This has been accomplished chiefly through the annual meeting of the state officers and county society officials, and partly by talks before county societies. The prominence of the former conference cannot be too strongly emphasized. Although the date of the last session conflicted with other important conventions, seventy-nine counties were represented, and one hundred and thirty-six physicians were present. The necessary committees have been appointed to meet, confer, and cooperate with lay agencies that interest themselves in health activities. Meetings have been held with representatives of these various organizations, and we feel that the interests of physicians are, and will be, amply protected.

The speakers bureau is an accomplished fact, furnishing speakers for both scientific and lay audiences. Its scope is constantly increasing, and we hope that in the very near future it will have expanded until its direction will require the entire time of one person.

Beside our main duty, which is constantly held in mind, the Council has performed many minor tasks which, though small in themselves, are large in the aggregate—tasks which tend to increase the zealous interest in the county society by its members.

The Council would feel remiss did it not acknowledge the assistance rendered by our presidents, present and past, the secretary, the trustees, and the managing director.

1930

No business, no enterprise, no profession ever stood still. We must either progress or we will regress. The activities of the state society have exhibited progress, and will continue to do so, furthered by plans contemplated for the future.

With the proposed redistricting of territory, the Council has been loathe to undertake new enterprises, not wishing to encumber another Council with unfinished business. However, we hope that a district society will be formed in each councilor district, and that these societies may be under the nominal supervision of the state society. It is further hoped to have an annual joint meeting of the district societies in some center where clinical material is plentiful—possibly combining such a meeting with the clinics of the state medical college. The advantages and possibilities of a district society are many and not least among these will be the relief afforded the smaller county societies.



We are particularly anxious to establish the post-graduate courses as outlined by the University College of Medicine for either county or district societies. To me it is imperative that we avail ourselves of the opportunity to secure the services of this body of trained scientific men. They are not only ready and anxious to assist us, but are willing to conduct courses anywhere within the state. The society should be ready to provide suitable preceptors for the instruction of medical students during the summer months. It is generally conceded that the contract between the county supervisors and county medical society is the best known method of taking care of the indigent sick. Several counties are now operating under this plan. Many are considering it and we trust that it will become generally accepted. Lay health activities are here to remain and the profession must assume its natural position of leadership. To do so we will have to form

and maintain closer contacts with many of these organizations

Iowa has always been a great state in which to live, and it lies within our own power to make it the best state in which to practice medicine. The way is plain ahead of us: Cooperation amongst our members, united county societies, and co-ordination of our activities can accomplish a very great deal in the immediate future.

Channing G. Smith

Chairman of the Council.

The Legislative Committee

1929

During the Forty-third General Assembly your Committee, for the better interest of public health in Iowa and in behalf of the profession and hospitals, took an active interest in the four following measures:—

Workmen's Compensation. At the suggestion of Industrial Commissioner A. B. Funk, support was lent to a measure to raise the limit of \$200.00 for total hospital and professional services under

the workmen's compensation act. The proposed measure as prepared by the Industrial Commissioner provided for professional services up to \$200 and for payment of all hospital fees. This seemed a perfectly reasonable proposal since twenty of the northern states have no limit on either physicians' or hospital bills, and since there is no reason why a just and fair bill for \$500.00 worth of service should not be paid in full exactly as a just and reasonable bill for \$5.00 is paid in full. This measure was fought throughout

both the House and Senate by representatives of various corporations who were lobbying against it, and finally passed in an amended form which increased the limit from \$200 to \$300 for all medical and hospital services.

Wamstad Bill. Representative Wamstad introduced substantially the same bill which was passed by the House in the Forty-second General Assembly and narrowly failed passage in the Senate. This measure in addition to remedying by statute certain University Hospital administrative methods to which objections had been made both by the public and the profession, also provided for charging the cost of patients to the counties committing them. Later Mr. Wamstad conferred with this committee regarding the conferences it had had with the College of Medicine faculty and the Board of Education; and subsequently withdrew the bill making at that time the following explanation:

"Since introducing this bill in the Forty-second and again at the beginning of this session I have become convinced that there has been a concerted effort made on the part of the University authorities, the Board of Education, and the State Medical Society, to correct the abuses which have existed in the administration of the Perkins-Haskell-Klaus act in recent years. Chief among these are the limitation of the period of commitment and a more complete statement showing financial conditions and necessity of hospitalization of patients committed."

Law Enforcement. The Commissioner of Health suggested that the committee support a measure to provide for an inspector in the State Department of Health whose duty it would be to collect evidence and see to the institution of proceedings for violation of the medical practice act. This bill was passed. Mr. Herman Carlson, an attorney, has been at work for the last six months and very satisfactory results are already being attained.

County Health Unit. Your Committee also interested itself in the passage of a law which permits the County Supervisors to create a county Board of Health of eleven persons three of whom must be members of the County Medical Society. This measure not only provides for the coordination of all public health activities but makes certain that there shall be proper professional advice and guidance.

1930

The year 1930 presents great possibilities for the medical profession to serve the health and welfare of Iowans through the following activities:



Workmen's Compensation. Justice should be given the hospitals and doctors of Iowa. Even under the present amended act any unscrupulous corporation or insurance company can accept (and they often demand) medical and hospital services amounting to many hundreds of dollars and then pay only \$300.00. Opponents of the measure stated in the Legislature that the enactment of a law requiring payment in full of these bills would shut down countless factories and coal mines because of the great burden it would entail. If that be true then the hospitals and doctors of Iowa are subsidizing these industries, and apparently the only redress is to secure further amendment of this law in the Forty-fourth Assembly. Work on this must begin prior to the primaries and the fall election.

Wamstad Bill. The difficulties which the Wamstad Bill aimed to remedy, as well as other problems in connection with the University Hospital, are being studied by the Committee on Medical Education and Hospitals which the House of Delegates created by adoption of the resolution proposed by the Legislative Committee.

Medical Practice Act. Someone has well said, "Now that we have an inspector to secure enforcement of the medical practice act, all we need is a medical practice act to enforce." Our medical practice act is one of the weakest in the country with the result that Iowa has become the dumping ground for irregular practitioners.

Basic Science Law. Many are convinced that a Basic Science Law is necessary to protect public health. Your legislative committee is anxious that this should be thoroughly discussed in the 1930 House of Delegates and that definite instructions should be given in this matter.

Political Interest. The great need for 1930 is that more Iowa physicians should interest themselves in local politics. Many county societies and individual members have in the past year done great things in this field; and your committee would ask that every member and each component society be ready to cooperate wholeheartedly during the coming year.

H. A. Wamstad

Chairman of the Legislative Committee.

FACTORS OF IMPORTANCE IN THE TREATMENT OF RENAL LITHIASIS*

VERNE C. HUNT, M.D.

Rochester

Division of Surgery. The Mayo Clinic

Lithiasis is the most common surgical lesion occurring in the kidney. During recent years approximately 50 per cent of the operations on the kidney performed at The Mayo Clinic have been for lithiasis. The incidence of lithiasis is perhaps no higher than formerly; however, the careful clinical examination of patients and the investigation of symptoms and objective data have led to the discovery and diagnosis of lithiasis much more frequently in recent years.

Exact knowledge regarding the etiology in all cases of renal lithiasis is as yet not at hand; however, clinical and experimental investigation has resulted in the exposition of certain significant factors in the causation of lithiasis. The theory that remote foci of infection are instrumental in the development of lithiasis has received much support through clinical and experimental investigation. Of the various remote foci of infection, the teeth have, in recent years, received a great deal of attention, particularly in the consideration of recurrence of lithiasis. The most common constituents of calculi are oxalates, urates and phosphates; these are the most insoluble constituents of urine, and are held in solution to a higher degree in urine than in water. In the normal urine from a normal person, even when these constituents are present in excess, they retain the form of individual crystals. It would seem that formation of calculus must be on the basis of chemical precipitation of the oxalates, phosphates and urates in a manner that provides agglutination of their crystals to the development of concretions. Just what the mechanism is by which this may occur has not been ascertained. However, that chemical changes incident to the advent of bacterial invasion of the kidney and the urine may produce precipitation can hardly be overlooked. Rosenow has shown that certain strains of bacteria have definite specificity, and clinical observation has shown that the elimination of active foci of infection has resulted in the cessation of the process of recurrent formation of stones in patients who possess a so-called stone-forming kidney. At any rate, and whatever all the factors involved may be, experience has shown that treatment of patients with renal lithiasis is incomplete without the investigation and elimination of all remote foci of infection.

Although I do not wish to discuss particularly the diagnosis of renal lithiasis, there are a number of general principles which are worthy of brief consideration. The symptoms of intra-abdominal disease and those of disturbances of the urinary tract are often sufficiently atypical, not only to be confusing in diagnosis, but to be entirely misleading. At times, by virtue of referred pain, acute seizures from gall stones, and those from renal and ureteral stones, may be indistinguishable clinically. The frequency with which the gall-bladder or the appendix or both are removed for symptoms that have been produced by ureteral or renal calculus emphasizes the necessity of urelogic investigation if there is doubt regarding the accuracy of the diagnosis. Whenever there are subjective data referable to the urinary tract, or blood and pus cells are found in the urine, the urinary tract should be regarded with suspicion until by subsequent investigation such suspicion is proved or disproved. The presence of pus or blood cells or both in the urine may be due to disease in any portion of the urinary tract and it is noteworthy that at times such are the only data that may lead to investigation of the urinary tract and to the discovery of renal lithiasis as a silent condition, so far as subjective symptoms are concerned.

Braasch has presented data showing that stones in the kidney are multiple in more than 40 per cent of the cases, and that they are bilateral in approximately 10 per cent of the cases. Most stones are situated in the pelvis of the kidney; however, many occupy positions in the major calices, and a relatively small number are situated in the minor calices. Their constituents are such as to cast a shadow in most instances, in contradistinction to the constituents of gall-stones which so frequently fail to cast a shadow in the roentgenograms. In a small percentage of cases the shadows of renal calculi in the film may be almost invisible; excellent films, sufficiently clear to permit a diagnosis, are required, and they should be made only after careful preparation of the patient. This is particularly true of the soft phosphatic stones. When stones are multiple they may be confined entirely to the pelvis, but usually they are scattered throughout the major and minor calices. Branched stones vary considerably, but tend to assume the size and configuration corresponding to a cast of the pelvis and major calices, and may consist entirely of one stone or of several fragments. Branched stones are often silent so far as the production of symptoms is concerned, and are often found incidental to the careful clinical examination of the patient, or attention is directed to the advisability of in-

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vestigation of the urinary tract by the finding of the microscopic elements, red blood cells and pus cells in the urine. At times stones in the kidney are associated with stones in one or the other or both ureters which contributes considerably to the difficulties of determining proper methods of treatment. Various combinations, such as unilateral renal lithiasis with ureteral lithiasis of the same side, unilateral renal lithiasis with bilateral ureteral lithiasis, bilateral renal lithiasis with unilateral ureteral stone and, most infrequently, bilateral renal and ureteral lithiasis, are encountered.

The complications of renal calculi are renal infection, urinary obstruction and destruction of renal function. Renal stones may not cause symptoms, and these have been referred to as silent stones. It is true that they may be silent so far as the production of symptoms is concerned, but seldom, if ever, are renal stones silent so far as their effect on the kidney is concerned. There is always some infection in the kidney in the presence of calculi which varies in degree from the constant presence of a few pus cells in the urine to the extreme degree of extensive pyonephrosis with complete destruction of all function. Hydronephrosis is not an uncommon complication as the result of the impaction of a stone at the ureteropelvic juncture. Reduction of function as determined by the differential functional tests is usually observed in the presence of lithiasis, and the functional tests in many instances provide a reading which may be misleading in many instances. In the presence of stones there often is failure of secretion of dye in proportion to the degree of actual reduction of function through infection and injury to renal tissue. Many cases have been observed in which the differential functional test showed marked reduction of function in the presence of lithiasis, leading one to suspect considerable injury to the kidney, and to find at operation a fairly sound kidney which subsequent to operation returns to normal function, at least so far as the functional tests are concerned. Just what the factors may be that are instrumental in producing the low functional test in the presence of stones in some kidneys has not been ascertained. It has been suggested that through the sympathetic nervous system stones may exert an influence on inhibition of true renal activity. Whatever the factors may be, a low differential functional test, in the presence of lithiasis, should not always abruptly lead to the conclusion that the kidney is as badly injured as a low functional test might indicate.

In the presence of considerable infection associated with renal lithiasis, an acute process some-

times occurs secondary to impaction of a stone at the ureteropelvic juncture. This is characterized clinically, not only by pain, but by high fever, chills, leukocytosis and rapidly progressive general sepsis. Diffuse acute infection with the formation of multiple cortical abscesses are usually observed at operation or necropsy.

The significance of the complications of infection, urinary obstruction and destruction of renal function is emphasized by the frequency with which the radical operation of nephrectomy is necessary in treating renal lithiasis. In a recent review of 941 cases of renal lithiasis in which operation was performed at The Mayo Clinic during the years 1922 to 1928 inclusive, I found that nephrectomy was necessary in 334 cases (35 per cent) on account of the degree of infection and destruction of renal tissue. Such a high incidence of nephrectomy reflects unfavorably on conservative nonoperative methods.

It is often questionable which renal stones are surgical and when they should be operated on. I believe that with an occasional exception and in the absence of contraindications, practically all such stones should be removed as soon as their presence is known. Furthermore, in the interest of conservatism and preservation of kidneys, it is most important to recognize the presence of renal lithiasis earlier than in the past to facilitate the conservative removal of stones before such extensive injury has occurred as to make nephrectomy necessary.

It is true that small renal stones may pass, and many do pass. Practically all ureteral stones have originated in the kidney. One may not safely use the size of stones encountered in the ureter as a guide in determining whether or not a renal stone will pass. Many stones leave the kidney to make their passage satisfactorily to the bladder, but these must necessarily be small. Stones may pass from the kidney and become impacted only when they reach the ureterovesical juncture, where in many instances they may be aided in passage by nonsurgical methods, through the dilatation of the ureteral orifice or the passage of multiple catheters, and removed by so-called catheter manipulation. In general, so far as size is concerned, it may be stated that if a renal calculus found in the course of a thorough clinical examination, has not produced symptoms, and is less than approximately 0.5 cm. in diameter, its removal is not particularly urgent. An opportunity should be afforded for spontaneous passage of the stone, during which time by making films at intervals of several weeks or months any change in position and size may be ascertained. If the position does not change but the size increases during the per-

iod of observation, it is most conservative to consider early removal after the stone has become too large to expect it to pass. On the other hand, repeated renal colic from a renal calculus of any size, retaining its position in the kidney, furnishes sufficient and just indication for surgical removal. Renal calculus, which is and has been silent in the aged, so far as symptoms are concerned, and when good renal function has been maintained, furnishes another exception to the rule of surgical removal when the diagnosis is established. In such instances, the mere presence of a stone manifests little, if any, influence on life expectancy, and operation is best postponed until indications for removal occur.

Considerable difference of opinion has existed regarding the branched stone, particularly when it is encountered in the absence of symptoms, and there is minimal infection and little, if any, reduction of function. In the past, under just such circumstances, there has been a strong justifiable tendency toward observation and the postponing of surgical procedures until indications for surgical removal have developed. This has seemed most logical in most instances, especially when large branched stones have been bilateral. In the past, large branched stones have been removed with great difficulty and with such extensive mutilation of the kidney as to require either primary or subsequent nephrectomy. When good renal function was present in spite of the presence of a large branched stone, greater conservatism, certainly for a time, has been possible through avoiding operation. In recent years, however, considerable progress has been made in the surgical removal of branched stones, by the process of crushing the stone in situ before removing it piecemeal through the renal pelvis. When branched stones are causing symptoms and their presence is resulting in injury to the kidney the question of conservative removal or nephrectomy is not always easy to determine. In the presence of adequate renal function, conservative removal of the stone is the procedure of choice, if the stone can be removed with a minimum of mutilation to the kidney. Nephrectomy is certainly easier than the conservative operation in cases of large branched stones; however, conservatism of renal tissue under difficulties distinguishes the surgeon from the "operator."

Renal lithiasis complicated by ureteral lithiasis provides problems which are not always easy of solution. In cases in which ureteral lithiasis is associated with renal lithiasis it may not be possible to determine the status of the kidney, as regards the amount of infection and function, previous to removal of the ureteral calculus, par-

ticularly if the ureter is impassable to a catheter. In such instances it has proved best to remove the ureteral calculus first, if situated in the lower half of the ureter, and determine the renal function and degree of infection later. When a ureteral calculus is situated in the upper half of the ureter it may be removed simultaneously with the stone or stones from the kidney through a posterior incision, if a conservative operation can be accomplished, or simultaneously with nephrectomy if the indications are clear for the radical operation. In case of the latter necessity nephro-ureterectomy to a point below the ureteral stone has proved the procedure of choice. In those instances of a ureteral stone on the side opposite the renal calculus, the method of procedure is dependent on the degree of disturbance of function and amount of infection on either side, and the same rules apply in general as in bilateral renal lithiasis.

Bilaterality of renal lithiasis is serious in direct proportion to the amount of renal injury and infection. Except under most unusual circumstances it has not been advisable to operate on both kidneys simultaneously, but, everything else being equal, to operate on that kidney first to which the acute symptoms, if any, have been referable. In the absence of acute symptoms, but with distinct evidence of marked difference in the amount of renal injury incurred by the presence of stones, it has seemed best to operate first on the kidney with the better function in order to take advantage of the function remaining in the poorer kidney during the period following operation.

The renal pelvis provides most adequate access for the removal of stones from the kidney, and one is sometimes surprised at the size of the stones that may be removed by pelviolithotomy with minimal trauma to the kidney. In my experience with the conservative operation of removal of stones from the kidney it has been possible to remove the stones by pelviolithotomy in 85 per cent of the cases. The operation of nephrolithotomy, or incision through the cortex of the kidney, has been reserved for cases in which the stones were inaccessible through the pelvis, in that they were encysted in terminal calices and were situated rather superficially under the renal capsule. It is extremely gratifying that the method of partial hemisection of the kidney for stones in the renal pelvis has been abandoned.

It is possible for renal stones to reform, through the persistence of preexisting foci of infection and other indeterminate factors entering into the formation of stone. There are so-called stone-forming kidneys, in which calculi continue to develop even after all demonstrable foci of infection

have been eliminated. However, true reformation of stones occurs rather infrequently, and experience has shown that the relatively high incidence of so-called reformation of stones has in reality been the continued development of stones overlooked at the time of operation, or of particles incompletely removed, which serve as nuclei for subsequent stones. Surgeons of wide experience in operating for renal lithiasis have all suffered the humiliation of being unable to find enough stones at operation to account for all the shadows in the roentgenogram, and of having shadows persist after operation. Likewise shadows have often been found immediately after operation when the surgeon was certain he had removed single or multiple stones completely. In other words, overlooking one or more stones at operation is a significant factor in the so-called reformation of stones. Roentgen-ray examination as a routine a few days after operation is the only means of distinguishing between the oversight of stones and their subsequent recurrence.

The difficulty that the surgeon experiences in locating and removing all stones, and the occasional failure to remove all stones as depicted by early postoperative roentgenograms, emphasized the need of aid in the localization of shadows at operation. Braasch and Carman, employing the principle of localization of foreign bodies in tissues at the operating table, devised a method of fluoroscopic examination with the kidney elevated out of the wound. The method has proved invaluable in the detection of even small particles of stony material, which otherwise could not have been found, and has afforded reasonable assurance of complete removal of all stones before the conclusion of the operation. To determine definitely that the kidney is clear and free from all stones at the close of the operation has afforded the surgeon and patient greater assurance of a good surgical result, and has practically eliminated the persistence of postoperative shadows in the renal area. Fluoroscopy at the operation has made possible the conservative operation of pelviolithotomy for multiple stones in cases in which nephrectomy was formerly often necessary.

Quinby has advocated the making and developing of films at operation as an aid in the localization of stones, and for the assurance of complete removal of all stones. These methods have attained such importance in the surgery of renal lithiasis, that to insure the best results it is questionable whether one is justified in contemplating pelviolithotomy, particularly for multiple stones, without fluoroscopic aid or facilities for the rapid development of films at operation.

INTERMITTENT MUSCULAR SPASMS, RESEMBLING JACKSONIAN EPI- LEPSY, COMPLICATING RE- CURRENT EPIDEMIC ENCEPHALITIS*

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Since the pandemic spread of epidemic encephalitis—or as it was then called by its investigator, von Economo, encephalitis lethargica—from Vienna in 1917, to its appearance in New York City in 1918 and its subsequent spread westward along the principal routes of trans-continental travel to San Francisco in 1920, many articles on this disease have appeared in medical literature from the pen of able writers both in this country and abroad. Physicians of the past generation can well recall the pandemic disease, "La Grippe Cerebrale," so ably described by Phahl, which encircled the globe in 1892, and which left in its wake many unfortunate sufferers from its direful nervous sequelae; also they can recall, not only the polionyelitis epidemic which occurred in this country in 1916 leaving some 26,000 victims throughout the United States, but, and by no means least, the epidemic involving the nervous system following the demobilization of troops after the World War, epidemic encephalitis. It is the latter disease which attracts our attention at this time, not on account of any paucity of medical literature dealing in general with this disease entity, but because of the sequelae which have, and still are, attracting the attention of the medical profession throughout the world. Perhaps of all the after symptoms of this disease, the parkinsonian syndrome is the one most frequently met with. That the disease may attack any part of the central nervous system, from the brain cortex to the spinal cord, is well known; but that it has certain sites of predelection—as the basal ganglia and brain stem—makes it a very formidable disease and one fraught with grave destructive potentialities. Various sequelae have been mentioned by writers on this disease and of more recent time the ocular manifestations, especially the forced conjugate upward movement of the eyes, have attracted considerable attention. Usually these eye findings are a part of the post-encephalitic parkinsonian syndrome and are but another means of adding more to the already overburdened sufferer of this terrible affliction. These ocular spasms were first described by Hoh-

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Figure 1—Showing spasm involving the right upper extremity producing a transient monoplegia of the parts.

mann in 1925, whose article was followed by others, both in this country and abroad. A perusal of the literature seems to indicate that the mechanism affected lies in the extrapyramidal tract system—the corpus striatum and its allied connections with the ocular apparatus, the anterior quadrigeminal bodies and the oculo-motor centres. It is not with the ocular phenomena that we are primarily interested, and mention has been made of the same merely to pave the way for the consideration of a less frequent type of spasm which at times may involve an extremity as a postencephalitic complication. Under the title of "Intermittent Claudication," M. Lemos, in 1924, published the report of a case in which cramps of the muscles of mastication and of the arms occurred in association with conjugate deviations of the head and eyes. This phenomenon was regarded by the author as due to a crisis of extrapyramidal hypertonía, probably based on a lesion occurring in the corpus striatum.

The primary object of this paper, however, is to report a case in which three distinct attacks of epidemic encephalitis occurred, the last one being complicated by spasms involving the right

arm and leg—more especially the arm—and at times causing conjugate deviation of the head and eyes with spasm of the facial muscles.

REPORT OF CASE.

An unmarried white male, 21 years of age, a pressman by occupation, referred to me by W. W. Pearson, M.D., February 16, 1924, complained of headache, dimness and blurring of vision, diplopia, dizziness, and occasional attacks of nausea; conditions present during the preceding week or ten days. The family and personal histories were without interest, save the man had been ill for three weeks with influenza during the 1918 epidemic, and again for a period of two weeks in 1920. No ill effects were noticed following either illness. A month previous the patient had suffered for three or four days with a "cold in the head," but no time was lost from work on account of the same. Following the onset of the cold, some aching was felt behind the eyeballs and in the back of the head, and a somewhat troublesome diarrhoea occurred and lasted for a couple of days. Coincident with the diarrhoea were recurring attacks of nausea, not associated with vomiting. These symptoms were soon followed by dizziness, blurring of vision and diplopia, associated with a feeling of mental heaviness or drowsiness.

On examination, the station and balance were fair, there was slight ataxia of the upper extremities, a fine tremor of the hands, equal grip, and normal pronation-supination movements. Pupillary response to light was prompt, as was also the consensual reflex. The right eyeball could not be rotated outward or inward, and the left globe only very slightly so to either side, but vertical nystagmus was present when the eyes were rotated upwards, and faint horizontal nystagmus was present when the left eye attempted to rotate outwardly. There was no hemianopia, and the diplopia was transient in character. The other cranial nerves were all intact, except the hearing was somewhat reduced in the left ear, a condition which had probably been present for some time. There were no fundi changes. The chest and abdominal organs were negative; oral temperature 99.2 F., pulse 108, blood pressure, systolic 130 mm., diastolic 60 mm. The right abdominal reflex was absent, except for a faint twitch in the upper portion, with the left reflex only slightly preserved. The right biceps and the left knee jerk were the most active of the deep reflexes. Slight plantar response was capable of elicitation on both sides while the cremasteric response was slight on the right with

normal activity on the left. Both superficial and deep reflexes tended to rapidly diminish on repeated stimulation, only to return fairly promptly after a period of rest. The musculature of the right lower extremity seemed a little weaker, by contrast, than that of the opposite side. Sensations to cotton-wool touches, hot, cold, sharp, dull, and tuning fork vibrations were all normal. The urine and blood findings were negative, (leucocytes 8,000), as was likewise the spinal fluid, the pressure being 8 mm. Hg., clear, three cells, absent globulin and negative Wassermann reaction. Under observation, the temperature curve and respiratory rate were found to be normal, but the pulse rate registered between 80 to 100 per minute.

By the first of April, the patient had returned to work, at which time he noticed a little numbness in the arm and leg on the right side. The same was purely subjective and lasted but a short time. All the deep reflexes were active and equal; the cremasteric and abdominal were still a little diminished on the right side and there was yet a little ataxia, finger to nose test, on the right side. The diplopia had long since disappeared and the ocular movements and pupillary responses were all normal. To all outward appearances the patient had made an uneventful recovery and had resumed his former occupation.

In June 1926, while in search of employment in Chicago, he became ill with a "cold and a sore throat." The cold lasted about a week, but the throat soreness persisted for some time. Coincident with this illness was a return of visual blurring associated with diplopia. The visual disturbance did not last a great while and was unaccompanied by any other symptoms such as were present during the first attack. After some three months absence he returned home, apparently in good health except for some tonsillar irritation which was relieved following tonsillectomy.

The onset of the third and last attack was sudden and came on without preliminary infection of the nose or throat. While reading during the evening of November 8, 1926, he noticed that his vision became blurred, and that it was more so when looking to the right. There was no diplopia, and the blurring was transient in character. A few days later, while driving his automobile, his vision to the right suddenly became defective and, without warning, he collided with a car parked alongside the street curbing. Following this accident he at once reported for examination, at which time was elicited the history of the preceding attack he had sustained a few months previous while in Chicago, and which had been



Figure 2—Showing spasm of the upper extremity in association with conjugate deviation of the head and eyes and overactivity of the facial muscles. The marked inward rotation of the left eye and contraction of the frontalis muscle are to be noted.

given no consideration at the time by either himself or by his attending physician.

Examination showed the pupillary reflexes and ocular movements to be normal, there was no nystagmus, but the visual fields were defective to the right. Aside from the hearing remaining diminished on the left side there were no changes found, neurologically. About ten days after the onset, the patient noticed that the right arm and hand involuntarily drew up as if in a spasm or cramp. Later, while attempting to board a street car, his right leg suddenly became stiff, causing him to fall forward through the open car door. Close questioning revealed that preceding these spasmodic attacks a peculiar sensation, indescribable, went through the entire right side of the body, following which a spasm took place in the right arm, and, if walking, in the corresponding leg. The pre-spasmodic sensation always began in the right leg, radiating upwards through the trunk and arm, followed by a peculiar cramping of the hand, wrist and forearm, associated with, or without, cramping of the muscles of the leg

and involvement of those of the face and neck. The attacks were irregular, could not be brought on by volition, lasted usually a minute or more, and were not accompanied by pain or loss of consciousness. Sometimes the spasm in the arm was accompanied by a turning of the head to the right, an overactivity of the facial muscles and a turning inward of the left eyeball. At other times, only a spasm involving the right upper extremity occurred. These attacks, together with the right homonymous hemianopia, lasted over a period of some three weeks, following which an apparent recovery took place, which has thus far been permanent.

COMMENTS

A study of this case fully warrants the statement that epidemic encephalitis is infectious in origin and may recur or reappear in the same individual after varying lengths of time. The first attack—typical in every respect with its symptom group of headache, pain behind the eyeballs, dizziness, blurring of vision, diplopia, drowsiness, nausea and diarrhoea, following an upper respiratory infection—in our present knowledge of the disease, could not well be mistaken, as regards diagnosis, by the crudest novice. Within a few weeks, however, the storm had apparently blown over, leaving behind no demonstrable clinical evidence of its former presence. True, during its activity, the lesion seemed to be somewhat wide spread as far as brain involvement was concerned; and the manner in which the tendon reflexes rapidly diminished in amplitude and the superficial reflexes—both abdominal and cremasteric—readily tired on repeated stimulation, reminded one of similar findings often encountered in cases of myasthenia gravis. The weakness of the musculature of the right lower extremity, the almost total absence of the right abdominal reflex, and the sluggishness of the right cremasteric reflex, likewise pointed toward the hemiplegic variety of the disease.

Two years elapsed before there was a return of symptoms indicating a recurrence of the former trouble. The visual disturbance and diplopia complained of in June, 1926, were coincident with a nose and throat infection. Careful interrogation failed to bring out anything that would lead one to suspect a diphtheritic infection as a basis. In an absence of actual clinical and bacteriological findings at that time, however, one can but assume, from the history, that the visual blurring and diplopia complained of during this attack were either a recrudescence of a latent or slumbering infection lighted up by a superim-

posed infective agency in the nose and throat, or else were due to a second attack of a virus, the effect of which was not so wide spread and far reaching as before.

When, however, a few months later—November, 1926—a third attack was ushered in, without a previous or coincident infection having occurred, one can logically surmise that the same was, in all probability, a recrudescence of the attack occurring five months previously. Just why this third, and last, attack should be complicated by muscular spasms or crampings involving the extremities on the right side and, at times, the facial muscles with conjugate deviation of the head and eyes, is, to the writer, unexplainable. The peculiar, indescribable sensation—arising in the right leg and radiating upwards through the entire right side of the body—is quite suggestive of an epileptic aurae, especially as the same was immediately followed by a tonic spasm involving the musculature of the right upper extremity, and, at times, the right lower extremity, with, or without, deviation of the head and eyes and overactivity of the facial muscles. Suffice it to say, however, that the field of consciousness was never invaded during one of these spasms. That some cases of epidemic encephalitis are followed by the epileptic state is now well known as has been so ably pointed out by Professor August Wimmer, of Copenhagen. Whether or not this case illustrates the postencephalitic epileptic syndrome, *sine unconsciousness*, or whether it illustrates the intermittent claudication phenomenon described by Lemos, or whether it represents something heretofore undescribed, is a matter of speculation. It is only by the study of such problems as the one herein presented that the ultimate truth will be ascertained, and until that time arrives one can only speculate as to the probable cause for the same, in the meantime realizing that the last chapter concerning epidemic encephalitis has not yet been written.

In conclusion I would state that the report of this case has been purposely delayed in order to ascertain whether subsequent attacks of the disease were yet to come, or whether some change in the symptomatology was yet in store for this patient. Sufficient time, it would seem, has elapsed to allow for the presence of either. So far nothing has occurred to mar the apparent recovery of one who is daily performing his accustomed duties without outward evidence of having passed through such severe crises as are above related.

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Discussion

Dr. Max E. Witte, Clarinda—I want to say something about a subject I have observed in a large number of post-encephalitic cases under my care, and even while the active disease was present. I saw a number of cases and have been able to follow them, and my experience has led me to the opinion that when the stormy part of the disease is apparently over, it is apparently so only. Whatever there may be as its basis, and wherever the germs may have left their tracks, in the basal ganglia of the brain or elsewhere, they may subside in their activity for a time and yet underneath the crust they keep gnawing on, therefore we have various symptoms—eye symptoms, motor spasms, etc. So it is not surprising to me that Dr. Throckmorton ran across a case of Jacksonian epilepsy. My experience with Jacksonian epilepsy indicates that it is due to brain injury, and I can readily see that the germs, continuing their pernicious activity and especially in encephalitis lethargica, also have effected sufficient obstruction by repeatedly becoming active to give us the symptoms of Jacksonian epilepsy. We do not know exactly where it is located, but there are many cases of skull injury not accompanied by Jacksonian epilepsy. In cases of Jacksonian epilepsy due to trauma most of the damage to the brain came from fracture of the skull by contrecoup.

Just another word in connection with this subject. I have had many cases come to me in which there was no history of an active form of encephalitis, but what the patients did complain of was the condition commonly called "flu". It seems to me to be a faculty amongst our people to call everything they have that is evidenced by coryza, etc., the flu, as in the epidemic that occurred about ten years ago. But by close questioning I found that they did not have the flu, but a very mild attack of encephalitis lethargica at the time, which escaped the notice of the attending physician or his consultant. Just the same, however, in this mild and innocent beginning we have had some of the most serious sequelae one could see.

Dr. Anatole Kolodny, Iowa City.—The so-called Jacksonian epilepsy following encephalitis is very infrequent. I will report here one case. The patient, a man about 25 years of age, was treated by Dr. VanEpps some few years ago, for encephalitis. He had the acute stage while in the hospital at Iowa City; then, after he was well enough to leave

the hospital he continued coming for treatment, so that we were able to follow up the case. He came back last fall with epileptic fits of the Jacksonian type, involving the right side of the body.

It is my opinion that in the case of a young person having Jacksonian epilepsy an exploratory craniotomy is indicated to ascertain whether we are dealing with a lesion that could be remedied surgically. A left exploratory craniotomy was done by me on this patient, and I found a beautiful scar just in front of Rolandic fissure, which extended into the motor area of the lower extremity. Here was a scar with a cortical depression which could easily accommodate the tip of a finger. Dr. A. S. K. Wilson of London reported similar lesions. Epilepsy is not caused by a subcortical lesion; only when the cortex is involved epilepsy may follow. Now, in encephalitis there is a subcortical involvement; later when the subcortical lesion heals the scar exerts traction on the overlying area of the cortex, thus causing the discharging lesion of an epileptic fit.

Dr. Throckmorton (closing)—I feel that the remarks made near the close of my paper have been borne out by the discussions of Dr. Witte and Dr. Kolodny, in that the last chapter concerning our knowledge of epidemic encephalitis has not yet been written. When I was sort of drafted by the members of the program committee to read a paper before the scientific assembly, I felt in a way that the presentation of this kind of case might not attract attention, and yet, on the other hand, if nothing else has been gained from the few remarks I have made (and what was said by Dr. Witte was pertinent), you may be impressed by the thought that when you see cases which manifest a group of symptoms such as a slight cold or a little fever or an achy feeling, such as any mild infection may produce, those individuals with such minor and common symptoms may later become patients suffering from epidemic encephalitis. Therefore we should bear in mind as practitioners of medicine that in this so-called comparatively innocent symptom group, such as outlined to you, there may be the syndrome which later on may grow and develop and when in full fruition will bring before you the picture of epidemic encephalitis. My good friend Dr. Witte of the State Institution sees the end result of some of these unfortunate cases, the dementia resulting from this disease. On the other hand, Dr. Kolodny from his experience as a neuro-surgeon has seen how lesions of the brain may be brought about by an inflammatory process as the result of this disease. From my experience I am convinced that the disease may become latent, flaring up at some future time after the initial attack and manifesting, perchance, odd neurological symptoms, which may be wrongly interpreted if one loses sight of the original attack and its attendant symptom group.

HERPETIC KERATITIS*

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The first accurate description of corneal herpes was by Horner¹ in 1871. Following this first work many careful clinical and anatomical studies were published, and a group of corneal lesions were soon defined which were believed to be manifestations of herpes. In all of the descriptions of herpes up until very recent date, the belief is expressed, that these lesions are of symptomatic or of nervous reflex origin. A few writers, however, do make mention of the observation that the disease has some of the characteristics of an infection. Many of the earlier conceptions of the disease were overthrown in 1920, by the publication of the work of Gruter,² who found the fluid from a vesicle in a case of herpetic keratitis was infectious; and could be transmitted to the cornea of a rabbit, then after passing in series through a number of these animals, back again to the cornea of a blind man causing herpetic keratitis, thus he discovered herpes to be due to the action of a virus.

For our discussion we will consider herpes only as it comes under the two principal types, namely herpes simplex and zoster. The latter differs so much from the other forms as to give the impression of its being a distinct clinical entity. The term herpes simplex or febrilis includes all the other types and is the vesicular epithelial eruption so frequently encountered following a common cold, influenza, pneumonia, malaria, and other infections, it may occur in non-infectious nervous disturbances; or other systemic disorder. In general both herpes simplex and zoster make their appearance with acute onset, slight fever, and general malaise. In the former vesicles appear, pin head or smaller in size, superficial, and grouped without regard to nerve supply, may be bilateral, never leaves scars, usually non-painful, no immunity is produced, attacks reoccur indefinitely and the disease is readily transmitted to rabbits by corneal inoculation. In contrast to this the vesicles of herpes zoster are larger, involve the deeper cutaneous structure including the corium, are unilateral and follow the distribution of one or more segments of the central nervous system, always leave scars, is accompanied or followed by severe neuralgia pains, one attack usually produces life immunity, and attempts at animal inoculation have generally been unsuccessful.

Teague³ and Goodpasture, Gruter⁴ and a few others claiming success.

The virus of herpes simplex belongs to the group of filterable and ultra-microscopic viruses. It is designated as a virus simply because we do not have the means to demonstrate it as we do other micro-organisms. Bedson,⁵ speaking of the nature of the virus herpes says, "Their resistance to certain agents, physical and chemical, would point to their being enzyme like, rather than bacterial in nature, and yet unlike any known enzymes they increase in quantity when acting on their specific substrate, and they have been known to give rise to specific anti-bodies." Simon,⁶ believes the herpetic virus is an example of the existence of an organism which would therefore confirm the existence of a group of micro-organisms which on the whole are non-pathogenic, but which may develop pathogenic properties under special conditions and therefore belongs to the same group as actively pathogenic viruses. There is evidence both clinical and experimental to prove that the virus of herpes is widespread on the skin, mucus membranes, and at times the blood spinal fluid, and glands of human carriers or susceptible individuals. The areas most frequently affected are the sensory distribution of the fifth cranial nerve and the cutaneous genital region. It does not seem to cause any injury in normal healthied individuals, local trauma or corneal foreign body injury has but rarely been followed by herpes, it seems to require more generalized systemic disorder to become activated, as from the presence of severe upper respiratory and other infections. Perdrau⁷ was unable to find the herpetic virus once in the examination of fifty human lungs following death from respiratory disease, twenty-six of which were frankly pneumonic. J. D. Rolleston⁸ gives the following relative frequency of herpes in various diseases: lobar pneumonia, malaria, and, cerebrospinal meningitis 40 per cent, scarlet fever 6.5 per cent, influenza 6 per cent, diphtheria 4 per cent, typhoid 1.3 per cent, relapsing fever 4 in 160, variola 2 in 3,000.

The virus is quite sensitive, Rivers⁹ found that fresh stock emulsion was not appreciably decreased in activity in twelve successive freezings and thawings, but when diluted 1 to 20 in Loche's solution is killed or inactivated by such treatment. Although some failures are reported the virus has been many times successfully passed through a Berkefeldt filter. Attempts to cultivate or to demonstrate it microscopically have not been successful. Observations published by the earlier investigators show the prevailing belief, that the virus of herpes simplex and herpes zoster are not identical. Gruter,⁴ Teague³ and Goodpasture believe

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that there is a difference in the degree of virulence only. The latter inoculated an extremely virulent virus of herpes simplex on the tarred skin of a guinea pig and succeeded in producing experimental zoster with the typical histological changes in the spinal ganglia.

Although febrile herpes and zoster have many points of similarity, there are many who believe that chicken-pox is, clinically and pathologically, as much like zoster as is febrile herpes. A great many instances of chicken-pox having developed in children who have come in contact with parents, or adults, having zoster have been reported in medical literature, and the reverse also is reported, as well as epidemics of zoster concurrent with chicken-pox. McEwen¹⁰ believes the so-called generalized herpes zoster is really chicken-pox, Low¹¹ states that varicella does not always protect against zoster, and that there is no instance of zoster patients developing chicken-pox later on, and in no case of zoster with generalized eruption did the patient previously have chicken-pox. Krouse¹² considers the pathology of the lesions of the two diseases to be almost identical. Pain is absent in chicken-pox because the virus is in the blood and there is no nerve lesion. Rivers and Tiller¹³ reports having recovered a virus from chicken-pox vesicle with which they were able to inoculate rabbit's cornea and elsewhere produce lesions histologically similar to herpes zoster, chicken-pox, and herpes simplex. Roxburgh¹⁴ reviews the experimental work of Kindratitz's of Vienna in 1925, who with vesicle contents from six cases of typical zoster, inoculated cutaneously, twenty-eight children, who had had neither zoster nor varicella before. Of these seventeen gave positive results and eleven negative. The majority of the positive results consisted of a patch of clear vesicles on a red base, which developed in from nine to twelve days and healed in about three days. Two of the children whose inoculations "took" gave rise to two cases of varicella, which developed on the fourth and sixteenth days respectively. One child was taken home by its parents in the early stage of the inoculation reaction, and sixteen days later its mother brought its two brothers and one sister with varicella. There was no other varicella about at the time. Kundratitz excised several of the pieces of skin showing positive reactions, these were examined by Lipschutz, who found in all the nuclear inclusions described by him as characteristic of zoster. All of Kundratitz successful cases were in children five years or under.

It is generally accepted that there are groups or strains of the herpes virus varying widely in viru-

lence. The avirulent known as the dermatropic because skin or epithelial lesions are more often encountered from this strain, and the virulent or neurotropic which rapidly attacks nerve tissue and when inoculated into the rabbit's cornea, results, in a few days, in death of the animal from encephalitis. This experimental encephalitis resembles closely that of epidemic encephalitis in man, and raises the question of the possibility of this virus being the etiological agent of epidemic encephalitis lethargica. Perdrau,¹⁶ da Fano¹⁷ and others express the belief that a virus of herpes very pathogenic for man is the causative agent of encephalitis lethargica. Flexner¹⁸ and Amos, as well as Zinser and Tang,¹⁹ however, do not believe epidemic encephalitis in man can be due to particular and peculiar varieties of the herpes virus, and that to attribute such connection is with our present knowledge unwarranted. Gruter⁴ was able to produce impetigo contagiosa experimentally by the inoculation of a mixture of virulent herpes virus and staphylococcus. The relation of herpes to the vaccine virus has been recognized for a great many years and certain degrees of cross immunization have been produced experimentally. Jenner²⁰ in 1804 called attention to this relation in the following words: "The further I go on with vaccination, the more I am convinced that the great and grand impediment to the correct action of the vaccine virus on the constitution is the co-existence of herpes. A single vesicle is capable of deranging the action of the vaccination pustule. Subdue it and all goes on correctly." Gifford²¹ was able to confirm the works of von Szily, namely to produce herpes in the opposite cornea in a certain per cent of rabbits when the virus is injected into the ciliary pouch, and also produce a uveitis in the second eye somewhat resembling clinically and histologically the picture of human sympathetic ophthalmia. His sections indicated extension of the process by way of the nerves and chiasm to the other eye and this was confirmed by positive inoculations from points along this route. Goodpasture²² in 1925 reaffirmed his earlier experiments on the portal of entry to the central nervous system and claims to have produced convincing evidence that the virus of herpes simplex does extend along the axis cylinders from a peripheral lesion and not through perivascular spaces, that the virus is propagated in these processes, and may be prevented from invading surrounding tissue by their myelin and sheaths of schwann. Friedenwald¹⁵ was able to demonstrate the virus of herpes simplex in the gasserian ganglion of rabbits whose cornea he had inoculated with virulent strains, and with the virus recovered from these ganglion

he was able to produce herpetic corneal lesions in other rabbits.

Pathologically the most characteristic cellular change in the lesions of herpes is the presence of intra-nuclear inclusions in the epithelial and other tissue cells of the affected areas, these, because of their constancy, uniformity of structure, and staining properties have come to be regarded as the specific change caused by the presence of this virus. These inclusions are slightly granular, surrounded by a sort of fatty capsule and a transparent unstained zone and occupy almost the entire nucleus of the slightly swollen affected cells. There is a complete absence of chromatin net work and nucleoli in these cells. The inclusions are in contrast with normal cell structure in that they take acid stains while nucleoli and chromatin of normal nuclei take basis stains. They are only found in the first few days or week of the herpetic lesion. There has been much discussion as to the exact nature of those inclusions. Lipschutz²³ who first described them believed them to be protozoa and the true etiological agent of herpes. Others consider them to be either specific^{15, 24, 25, 26, 28} or non-specific^{27, 29} degenerative changes. Cole and Kuttner³⁰ point out that the nuclear inclusions of this type have only been found in lesions where the filterable viruses have been demonstrated. Goodpasture³¹ believes they represent intra-nuclear propagation of the virus and has demonstrated that the type of inclusions found in herpes only occurs in the nucleus, thus differing from that found in some other diseases where inclusions are found, and he points out that this specific histological change correlates the lesions of herpes simplex, zoster, and varicella, and that these changes are not found in any other known human disease.

The corneal manifestations of herpes are of somewhat varied character, Gruter⁴ believes this variation is due to varying states of immunity in susceptible individuals, the difference in virulence, and the method of entrance of the infecting organism. Classed as herpetic keratitis are: dendritic, vesicular, filamentous, superficial punctate, and disciform keratitis as well as keratitis profunda and the corneal lesions of zoster. The symptomatology and clinical picture of these conditions are too well known to all of us to require further comment at this time. In all of these the herpes virus and the typical nuclear inclusions have been demonstrated in the lesions, and all are believed to be due to this same virus. In herpes simplex many of the early corneal changes have the appearance of the more superficial forms, namely, dendritic, punctate, and vesicular keratitis. Gilbert³² calls attention to four of his cases

of disciform keratitis which began as a typical dendritic keratitis and one with a central erosion; all of these changed in a few days to the characteristic picture of disciform keratitis. The well known characteristic early picture in dendritic, punctate, and even vesicular keratitis is known to be due to the round cell and polymorphonuclear infiltration along the fibrils of the effected nerve endings where the virus presumably is located at this stage. Gruter⁴ points out that the healing of herpes may be only apparent, and that there is intercellular edema and swelling of the epithelial cells, spongy infiltration of the upper layers and swelling of the connective tissue nuclei beneath Bowman's membrane, also loosening of the cell structure which persists for weeks or months, a condition called disjunction by von Szily, and can be demonstrated by the ease with which the epithelium may be detached, this is believed to be due to residual virus or toxins which remain in the scar tissue. In the later stages, if healing is not quickly completed, the cornea is apt to be rather extensively though not deeply ulcerated, with necrosis not only of corneal epithelium but in the deeper forms the corneal corpuscles also. Polymorphonuclear infiltrations are increased about the margin of the ulcer and deposits of leukocytes are found on the posterior surface of Descemet's membrane. Among the outstanding clinical characteristics of the superficial forms of herpetic keratitis, to be remembered, is the absence of vascularization of the lesions, and the rapidity with which the inflammation recedes, however, secondary infection of the ulcers may lead to more severe and destructive forms of keratitis with vascularization. Severe complications except those associated with the local lesion are seldom or never encountered in herpes simplex.

Herpes zoster as it affects the eye is practically always unilateral, and is associated with cutaneous involvement of the distribution of one or two branches of the fifth nerve. Pathologically there is located centrally hemorrhages, round cell infiltration, and the presence of herpes inclusions in the ganglion cells, as well as granulation and shrinking of the cytoplasm and other degenerative changes in the gasserian ganglion. Gilbert³² and Meller²⁶ point out that there is also cell infiltration extending from the ciliary ganglion to the eyeball, affecting the perineurium, endoneurium, and the nerve tissue itself, with it inflammation of the choroid and sclerotic where these tissues are in contact with the ciliary nerves; thus giving the choroidal and scleral lesions sometimes found in zoster. They believe that the corneal lesion is a true corneal neuritis caused by the herpes virus, and call attention to episcleral inflammation

which is a superficial manifestation of a deeper inflammation of the branches of the ciliary nerves near the limbus. Meller²⁶ believes that there are tissue injuries which also increase the corneal necrosis. Although the degree of injury to the cornea varies greatly in zoster beginning with insignificant symptoms in the epithelium, herpes zoster, results first in superficial destruction, then ulceration and deep-seated infiltrations of varied form and extent with severe scarring and permanent damage to vision.

The complications in zoster most frequently encountered are iritis, glaucoma, choroiditis, disturbances of the oculo-motor nerves, and optic neuritis, together with the pronounced degenerative and cicatricial transformation in the corneal tissue itself as already mentioned.

Herpes simplex seems to produce no natural immunity in human beings and recurrences occur as frequently as systemic or local derangement creates the proper growing conditions in those who are carriers of this virus. In contrast to this it is well known that one attack of herpes zoster will in almost every instance produce life immunity. Experimentally specific immunizing antibodies for herpes simplex have been demonstrated in rabbits' serum by Flexner,³³ McKinley and Holden,³⁴ Tang and Castaneda,³⁵ Schultz and Hoyt³¹ and others. These same authorities were unable to demonstrate any evidence of specific complement fixation, and in no instance was there any evidence of precipitating antibodies.

Friedenwald¹⁵ found that treatment of experimental herpetic keratitis by the methods usually employed in the treatment of the disease in man, produced no favorable influence on the course of the disease. For the most part the treatment of corneal herpes is symptomatic, protection against secondary infection, and the recognition of and proper care of complications should any arise. Recently the use of the violet ray has been reported in treatment of the corneal lesions of herpes with favorable influence in stimulating healing of the ulceration, however that the violet ray may have a damaging effect is pointed out by Perdrau¹⁶ who mentions the frequency with which ultra violet radiation has produced local tissue trauma precipitating an attack of herpes. Beeson³⁷ reports the use of autohemotherapy on seven cases of herpes zoster with rapid cessation of pain, attenuation of the eruption in from twenty-four to forty-eight hours, and no post zoster pain. He cites eighteen cases in the literature treated by this method, all of which responded well to treatment except two late cases suffering from post zoster neuralgia. One case he cites which healed the corneal lesion after the third injection, and six days later re-

gained the transparency of the cornea. Best results were obtained when the treatment was employed early in the course of the disease, and seemed to prevent the usual unpleasant complications. The exact mechanism of the reactions of this form of treatment is not well understood.

In conclusion: We find the infectious nature of herpes seems to be definitely established and herpes at once takes rank as a disease with definite specific tissue changes, and is no longer to be considered a mere incident or symptom in the course of other systemic diseases.

The etiological agent is believed to be a filterable ultra-microscopic virus widespread on the skin or mucus membranes of susceptible individuals, existing in an inactive or saprophytic form, to become locally active in nerve structure, only when the general resistance is lowered by other systemic disorder, or severe local tissue damage is produced in those of impaired resistance.

Corneal herpes represents a group of diseases known or designated by various names based on the appearance of their lesions, all of which are linked together by the herpes virus and the specific histological changes in their lesions, and in our present state of knowledge they cannot be separated etiologically even though there may be some variations in their clinical manifestations. In the disjunction or persistent loosening of the epithelium over the affected areas and the possible retention of the virus or its toxins in their areas as explained by Gruter there seems to be a logical explanation of why dendritic or other herpetic lesions often heal so slowly or so often re-occur in a short time after an apparent cure.

The treatment of corneal as well as other manifestations of herpes is non-specific, but with the realization that we are dealing with an infection with local manifestations in the presence of general lowered resistance, it is to be hoped that future investigators will bring forth a more effective or specific means to combat this disease.

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DISCUSSION

Dr. H. B. Young, Burlington—The laboratory investigations of herpes and herpes zoster are very interesting. I have often wondered whether this is a case of post hoc or propter hoc. Herpes simplex is seen often; herpes zoster is rare. I am finishing fifty years of practice and over this period I have seen three cases of zoster ophthalmicus; none were marked by purely ocular lesions; some had eruptions on the conjunctiva lid never on the cornea or deep. I have seen one case of probably zoster bilateral and I have always doubted whether it was a true case. Zoster is largely neuritis, neuritis is itself a systemic condition rather than a local one. Recently, I have had the most troublesome case I have ever had presented to me; the patient can anticipate the attack and can ameliorate them entirely, or to some extent at least, by remaining in her bath for several hours each day. With all of our laboratory experiments, we are back to the original belief that herpes arises originally from some systemic condition.

Dr. Fred W. Bailey, Cedar Rapids—In regard to the ultra violet light; I recently have had three cases of herpes in my practice. One patient was brought in from the country. The country physician had punctured the vesicles, allowing the serum to run out. This case was immediately turned over to one of the physicians in the city who handled the ultra

violet light and the effect was almost immediate relief from pain. The vesicles dried up and the patient got well in a few days. The second case was seen before any of the vesicles were broken and this case, with the ultra violet treatment, dried up within a few days. The pain disappeared after the first treatment. The third case is now under treatment, having been seen only a few days ago. This case is now better and will perhaps recover soon. In my own family, we had a case of intercostal herpes; which also got well very, very rapidly by use of the ultra violet light.

Dr. Elmer P. Weih, Clinton—There is an enormous amount of literature on this subject, especially in the last few years. It is almost impossible to cover all of the literature although Dr. May has done exceedingly well. Dr. May has covered his subject very thoroughly. It is evident that the chapters in text-books on herpetic keratitis must be rewritten. Numerous observers have noted the occasional great frequency of cases of superficial keratitis. This frequency often gives the impression of an epidemic. There are local and general differences in cases of keratitis associated with herpes. Some of the cases differ from keratitis punctate superficialis by the small number of foci, by large foci, here and there by a tendency to merge together, or by the appearance of fine opacities which comprise groups of foci. There can also be ulceration in part of the foci, although the process takes place slowly. The smaller the number of foci, and the larger the single focus, the more does the disease resemble keratitis disciformis which is a centrally situated focus. Finally fine opacities and facets remain. The course of the disease is long drawn out. The prognosis is favorable. At most there is only a slight injury to the sight, which is due to the formation of facets.

Dr. James E. Dyson, Des Moines—Dr. May asks me to tell about a case of herpes zoster, which I had about four months ago. This little boy had had chicken-pox at one and one-half years of age, and was again exposed to chicken-pox at eight years of age. On the fourteenth day after exposure, he developed herpes zoster over the intercostal nerve. There seems to be a direct relation between the nerves and herpes, as Dr. May points out in his paper.

RABIES' PREVENTION

The War Department has announced a plan for the study of the value of vaccination in the prevention of rabies. At Forts Ethan Allan, Sheridan, Riley, and other places it is planned to semi-annually vaccinate all dogs within the post for a period of ten years, maintaining an accurate record of their observations over this period of time. It is hoped that such a program may reveal significant facts relative to the usefulness of rabies' vaccination.

ESSENTIAL (CONSTITUTIONAL) HYPERTENSION*

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This subject is best studied under four heads:

1. The initial stage which is a type of constitutional hypertonic reaction: The blood-pressure is not much above normal, and never above 150 mm. Hg. and is the result of exogenetic or endogenetic causes, such as hard labor, psychic agitation, excessive use of tobacco, the climacterium, auto infection from pus tonsils, abscessed roots, etc. Removal of the cause will soon restore the patient to normalcy. The patient should be given a rest cure, and this he should take away from his accustomed surroundings as this will give him freedom from all of his usual occupations. A sedative, such as a bromide or valerian, may be administered when needed.

2. The primary stage is the beginning of labile hypertension with the blood-pressure varying between 150-200 mm. Hg. The blood-pressure fluctuates considerably from day to day, or even during any one day. Frequently the blood-pressure will return to normal; there may also be remissions from time to time. The subjective symptoms are much more in evidences than are the objective symptoms. Complete rest will give much relief and if the cause can be removed little or no additional treatment will be needed. However, it is generally necessary to adopt additional treatment. It is very important in these cases for the physician to have the full confidence of the patient. It should be explained to the patient that his condition at this time is not serious, and that if he will cooperate in carrying forward the treatment, he will get well. Such suggestive treatment will have the effect of allaying the patient's subjective symptoms, which will help to reduce the hypertension. Sedatives administered during the beginning of the treatment will also assist in relieving the subjective symptoms. This must be followed by a sensible mode of living, and abstinence from any deleterious habits, all of which will do much to establish continued well being.

3. Being secondary stage in which the blood-pressure ranges between 180-200 mm. Hg.: There are no longer any remissions, normalcy is never attained and the patient gives every evidence of serious illness. Nervous symptoms are present, such as headache and dizziness, there is much depression, and frequent angio-spastic symptoms, attacks of angina pectoris and a beginning weakening of the myocardium. It is rarely possible to

achieve any material reduction of the blood-pressure; the best we can hope for, is to reduce it to 160-180 mm. Hg. Even so little reduction will give the patient much relief. It is necessary to forestall, where possible, the hypertension crises which will occur frequently. Most patients subject to hypertension do not consult their physician until this stage is reached. The most important part of the treatment consists in complete rest, physical and mental, and the patient should be put to bed for a few days in initiating the treatments. Another item is a carefully regulated diet, almost salt free, and with very little meat and that may be chicken, very small amounts of bacon, or fish, and for the rest, baked potatoes, cereals, fresh or cooked vegetables, and fruit. If the vegetables taken in a raw state cause discomfort, owing to considerable flatus and meteorism, it is best to make use of only those vegetables which can be cooked. Under the same circumstances fruit may also be cooked or baked. This will avoid angio-spastic symptoms which often occur when there is pressure upon the heart by way of abdominal distension. To regulate the bowels give epsom salts.

The effect of blood letting is only temporary and in itself the removal of the blood produces no favorable effect; but this venesection gives rise to the draining of the water-logged connective tissue into the blood-vessels, which does the turn by producing a change of ionization of the blood. Blood letting is always indicated in angio-spastic condition, such as dizziness and apoplectic attacks. Also when after a period of rest in bed there is little improvement, it will frequently be very helpful.

Medical treatment is indicated during the interval in which the rest and dietetic treatments produce their effects. Nitroglycerin has an ephemeral effect, and is indicated only in fulminant hypertension, (blood-pressure crises). Sodium nitrite is useful where a prolonged effect is desired. To get worth while results, it must be given for some time. Diuretin has also been used with beneficial results: In very small doses, iodine has a dilating effect on the blood-vessels, while large doses are not at all effective. Give from one to three drops of a 7 per cent alcoholic solution of iodine in water or milk, twice or three times daily. Sulphocyanides dehydrate the blood-vessel walls and for this reason is antagonistic to cholesterol deposition. This drug has come into use in recent years, and it seems to have made a place for itself in the treatment of hypertension. Hormones have been used but are not helpful, except possibly ovarian extract in the climacterium, but there is not enough experience in its use to be certain of that. The urine should be kept alkaline.

*Read June 20, 1929, at a joint meeting of the Dickinson and Osceola County Medical Societies, Sibley, Iowa.

Recapitulating the useful drugs in this condition we have in the sedative group the bromides and valerian, and for reduction of blood-pressure, iodine, sulphocyanides, diuretin and the nitrites and alkaline treatment. The sulphocyanides have a predilection for the cerebral vessels and are especially useful in the relief of headaches and dizziness. Diuretin will relieve stenocardiac conditions, nervous angina pectoris and aortalgia. The nitrites will overcome the spastic conditions of the arteries of the chest and excel all other agents in their ability to reduce blood-pressure. A combination of potassium nitrite, sulphocyanide and calcium lactate taken in the morning and evening is very useful.

4. In the tertiary stage the blood-pressure is found constantly between 200-220 mm. Hg. There is practically no fluctuation. The patient's general condition is bad. However he does not complain as much of subjective discomfort, as might be expected; his organism seems to have adjusted itself to the hypertension. This is the stage wherein there are occurring pathological changes in the heart, the blood-vessels and kidneys, due to the continuous angio-spastic strains. Medicinal reduction of the high blood-pressure can be undertaken tentatively in these cases. It will sometimes be found that reducing the hypertension causes the patient to become worse, and so the medicines used for this purpose must be discontinued. In any case, it is impossible to obtain a permanent reduction of the blood-pressure by medicinal means and it is better not to make the attempt. If there be a sudden rise, venesection should be resorted to, and it is well known that one large abstraction of blood will give better results, than a number of smaller ones.

Our mainstay is rest and diet. The diet must be salt free and very little meat, for the rest as noted previously. Keep the bowels free by using epsom salts. The most helpful form of the bath, is to wring a pair of cotton blankets out of hot water, envelope the patient in this, put him to bed and cover him well. This can be repeated several times daily, as needed or according to the effect. An intravenous injection of 10 ccm. of a 10-20 per cent solution of grape sugar in water has been followed by considerable improvement.

5. The final stage: A. The stage of arteriosclerosis markedly affecting the cerebral and coronary arteries, and during which we are apt to have apoplectic strokes and attacks of angino-pectoris. B. The stage of arteriosclerosis involving the kidneys accompanied in the beginning by symptoms of insufficiency, and later of uremia. C. The stage of myocardial degeneration and

weakening of the heart, followed by decompensation.

The treatment in the arteriosclerotic stage is the same as the treatment given in the tertiary stage, only it must be much more vigorous in every detail and continued over a much longer time. The dietetic treatment must be almost equivalent to a starvation treatment, with so-called hunger days intervening. In the secondary sclero-nephritic cases the patient receives the same treatment, unless it appears that there is insufficient kidney function, under which circumstances the dietetic treatment will not be of much service, since the patient can not be helped thereby. About all that can be done, is an occasional venesection and the frequent use of saline cathartics.

In myocardial degeneration, accompanied by decompensation, give digitalis at once in massive doses till digitalization has been attained, after which continue the effect by the use of fifteen drop doses two or three times daily, as long as needed. High blood-pressure is no contraindication to the use of digitalis, providing always that there is heart muscle weakness.

All those who are subject to constitutional hypertension should at all times keep in touch with their medical advisor, their habits and actions should be very much under control. Rest cures several times annually (they need not be so very long), alkalization treatment, a proper diet, avoiding coffee, tea, nicotine and alcohol, will do very much to prevent the progress of the disease.

THE CLINICAL DIAGNOSIS OF HEART DISEASE

E. L. WURTZER, M. D., Clear Lake

There has been a great change in our conception of heart disease during the past ten years. Prior to 1920 we were speaking in terms of mitral regurgitation, myocarditis, aortic regurgitation, tachycardia, and bradycardia, and ulcerative endocarditis. Today we think of rheumatic heart disease—a term denoting mitral stenosis, a severe and progressive process—striking the youth of our country. Or we speak of syphilitic heart disease, denoting a syphilitic aortitis, with the diastolic murmur of aortic regurgitation—a cardiovascular entity, found in early middle life, affecting males more often than females, with its pathology existing in the aorta and not in the aortic valves.

The hypertensive form of heart disease—responsible for more than 70 per cent of all heart cases, is remarkable in its early stages, in that the

symptomatology, so far as murmurs are concerned, is absolutely negative, and when, later in the course of the disorder, murmurs are in evidence, they are of the functional type, systolic in time.

Murmurs today are considered as being of minor importance in our diagnosis, for example, mitral regurgitation, represents no disease, and is not found to be a constant factor in any disease, but is present in many normal hearts—their normality being based upon their normal function. Systolic murmurs at the base, usually over the aortic area, are neither diagnostic nor prognostic because they may only denote calcareous changes in old hearts in the majority of instances, and they represent but one phase of a general arteriosclerosis. However, when a systolic aortic murmur is found in a person of rheumatic age and history, it might denote rheumatic endocarditis, but rheumatism does not affect the aortic valve as often as it does the mitral, and their simultaneous affection is a clinical rarity.

Murmurs found in people past sixty years of age are either functional, due to myocardial weakness, or to calcareous changes of the delicate valve leaflets. Their presence is neither diagnostic nor prognostic.

THE PULSE

Perhaps the most common finding in examining a heart case, is an irregular radial pulse, but besides noting its irregularity, further study for only a few moments will reveal much of importance, and if the stethoscope be placed over the cardiac apex at the same time, the information thus obtained will assist many times in arriving at a correct diagnosis.

An irregular pulse in a child, modified by respiration, is not abnormal, but is a good example of sinus arrhythmia. This same condition is found in athletes and laborers under thirty-five years of age.

People from twenty-five to forty years of age, who complain of an irregular heart, usually self-diagnosed as a heart disease, very robust and in prime condition, but usually apprehensive—the irregularity being easily eliminated by exercise—such a patient has no heart disease, for, it is only a case of benign extra-systoles, and it becomes the physician's duty to assure the individual that no disease exists. The same or a similar irregularity is apt to be pathological when present in a person forty-five or fifty years old, who has a hypertension.

Given an irregular radial pulse, the stethoscope revealing a weak apical impulse synchronous with

the missed radial pulse—such a condition denotes an alteration, or pulsus alternans, and should be differentiated from extra-systoles, as it carries a more grave prognosis, and manifests organic changes in the cardiac mechanism.

A patient from twenty-five to thirty-five years of age, with an irregular radial pulse at a rate of 130 or over, extra-cardiac signs and symptoms of rheumatic heart disease—the pulse in such a case shows us that auricular fibrillation is present. It is sometimes possible to distinguish auricular fibrillation from auricular flutter by studying the pulse, as the last named condition has or is apt to have a more regular irregularity and a more rapid rate, as shown by a longer intermission between perceptible pulsations at the wrist. Either fibrillation or flutter in a rheumatic or hypertensive heart demands attention and a guarded prognosis.

A rapid pulse at 160 or over, regular, of sudden onset and sudden ending, is pure paroxysmal tachycardia, not heart failure. The opposite condition, bradycardia, or a slow pulse, with a rate below 40 per minute—the rate not altered by exercise, is heart block, as a rule.

BLOOD-PRESSURE

Blood-pressure estimations are very essential in cardiac diagnosis. A high systolic with a low diastolic pressure, the difference showing a large pulse pressure, is pretty good evidence of syphilitic aortitis or of a thyroid heart. A high diastolic is better evidence of hypertension than is a high systolic pressure, as the latter may vary many points in some individuals. A persistently high diastolic pressure is certain to produce the hypertensive type of heart disease. Blood-pressure studies also aid in the diagnosis of alternation or so-called dropped beats.

The above examples are given to show that heart disease can and most often is diagnosed in the office or at the bedside by the general practitioner, without the complicated mechanical aids, but using only the simpler instruments as the thermometer, stethoscope and sphygmomanometer.

Differential diagnosis is likewise possible by clinical methods. Angina pectoris and coronary occlusion can be differentiated at the bedside. Angina pectoris is remarkable in that it produces no symptoms manifesting a definite pathology. The age range is fifty years and upward, the pulse rate is normal and its rhythm is quite apt to be normal, the blood-pressure is not altered during an attack. The pain is not localized, but often widely referred, the chest is clear, and there is no fever nor leucocytosis. The onset is very abrupt. Heart examination reveals nothing of im-

portance. Relief is prompt by administering nitrites.

Coronary occlusion may occur in younger individuals, although there is apt to be some evidence of senescence. The pulse rate is increased, its volume is decreased, the rhythm is irregular, and alternation is often noted—the pain like that of angina pectoris, may be widely referred. There is a drop in the systolic blood-pressure, the diastolic pressure is not so greatly altered, and a small pulse pressure is a significant sign. The leucocyte count is increased early, often preceding the certain rise of fever. After ten or fifteen hours have elapsed, congestive patches may be found in the lower lobe of either or both lungs, and a cough may be present. Nitrites and even morphine have very little effect upon the pain.

A rapid but regular pulse rate is striking in two, conditions which should be differentiated, viz.: effort syndrome and the thyroid heart, the latter now considered as an entity. In effort syndrome we have symptoms of rapid heart action, precordial distress or pain, dyspnea, a sense of sub-sternal oppression, vertigo and visual disturbances, all of these are brought on by exertion. The history may reveal a recent infection, as pneumonia, influenza, or bronchitis, and neurotic tendencies are often obvious. Bed-rest produces a normal rate and rhythm in a short time.

The thyroid heart has a rapid rate without exertion, and rest does not bring it to normal. The general examination reveals symptoms of thyroid intoxication. The B. M. R. is increased, there is an increased systolic blood-pressure, with a large pulse pressure.

Other disturbances of the heart and its function can be differentiated by observation and clinical examination.

CONCLUSIONS

1. A fact worth keeping in mind, is that heart disease is a systemic disorder, as well as a local affair.

2. Its symptoms are due mostly to disturbed function, and these symptoms are manifested by any organ which has its blood supply altered.

3. The heart signs as heard through a stethoscope, may be misleading, and at best they offer insufficient evidence upon which to base a diagnosis.

4. The majority of heart diseases can be diagnosed and even differentiated in the office or at the bedside by simple clinical study and examination.

CASE REPORT

ACUTE MASSIVE COLLAPSE OF LUNG FROM FOREIGN BODY IN BRONCHUS*

JAMES E. DYSON, M.D., Des Moines, Iowa.

Acute massive collapse (Atelectasis) of the lung may be defined as airlessness of a lobule, a lobe, or an entire lung. There are two main varieties, the congenital and the acquired. Our thought has been that most atelectasis was that of the newborn from a lack of ventilation of the solid lung. There is however, an acquired type of atelectasis called massive collapse of the lung. It is caused by some disorder in or about the bronchus. It may be due to intra-bronchial obstruction, as a foreign body; or extra-bronchial pressure as peribronchial lymph node enlargement as described by E. Gordon Stoloff¹ in a two year old girl.

The intra-bronchial type of obstruction may be of ball valve or bypass valve type. N. B. Gwyn² cites Dr. Wookey's case in which the trachea became occluded with food during anaesthesia, with immediate death, despite efforts at artificial respiration. Early autopsy showed both lungs totally collapsed.

I wish to report a case of acute massive collapse of the left lung in a twelve months old boy. On June 6th, 1929, while sitting in a baby cab out in the front yard of his home, he became suddenly choked. He became cyanotic, breathed noisily and with great difficulty. He was rushed into a nearby hospital where a pulmotor was used. The cyanosis gradually lessened. He seemed very uncomfortable, coughing, wheezing, and breathing with difficulty. The temperature soon went up to 103°.R. The white blood count was 28,000 the next day. The right chest was full of coarse rales, the left side was quiet. X-ray³ was taken which showed "heart shadow displaced slightly to the left—aorta normal—diaphragm normal—increase in density of the lung structure in periphery of upper lobe of the left side suggestive of an incomplete atelectasis. Negative for evidence of foreign body." The temperature became normal in two days and white blood count gradually diminished to 9,000. He was kept in the Hospital ten days where a diagnosis of pneumonia had been made.

I saw him three days after leaving the hospital because of the hard attacks of loose choking

*Read at Des Moines Academy of Medicine, Annual Clinics, October 8, 1929.

cough. At times he would get somewhat cyanotic during a coughing spell. His mother thought he had whooping cough. His breathing was more rapid and noisy than normal. His color was a dusky sallow pallor. Not a true cyanosis but more the color of a monoxide poisoning. The right chest was full of coarse bronchial rales. The left side was quiet with diminished breath sounds and fremitus. The left heart border was out beyond the nippleline. There was some suprasternal drawing-in during inspiration. Temperature was normal, white blood count 22,000. X-ray of chest* showed "the heart markedly displaced toward the left. Diaphragm on the left high, and increase in density of the lung structure having the appearance of an atelectasis of the left lung."

We then made the diagnosis of a non opaque foreign body in the left bronchus causing ball valve obstruction and massive collapse of the left lung.

His temperature remained normal for six days, the white count gradually diminished to 9,300. He was eating and sleeping well. On June 26th, the temperature suddenly went up to 104.° R. There was dullness of the left chest posteriorly (the white count became 12,000.) There was diminished resonance and breath sounds over the left lung. The temperature gradually subsided. There were numerous coughing attacks, some of these were very severe and choking. He was bronchoscoped** and the remains of an apple blossom removed from his bronchus. An X-ray³ taken a few days later showed the massive collapse of the lung had entirely cleared up although the heart was not entirely back to its normal position. Physical examination one week later revealed a normal chest both heart and lungs. There was no cough and no fever.

A summary of the points of differential diagnosis of acute massive collapse of the lung due to a foreign body in a bronchus are:

1. Sudden onset with dyspnoea, cyanosis and collapse.
2. Fever, intermittent type.
3. Leukocytosis.
4. Paroxysmal cough.
5. Physical signs of a wet lung more or less airless.
6. X-ray⁴ shows density of lung, high diaphragm and heart pulled toward the involved side.

NOTES:

1. Stoloff, E. Gordon — American Journal Diseases of Children, Feb. 1928.
2. Gwyn, N. B.—International Clinie 1926, P. 136.

3. X-rays taken and interpreted by Dr. Thomas A. Bureham, Des Moines.

3. Personal communication—Dr. Henry Helmholz.

4. Bowen, David R.—American Journal Roentg, Feb. 1929.

* X-rays taken and interpreted by Dr. Thomas A. Bureham, Des Moines.

** Bronchoscoped by Dr. Moersch.

MEDICAL EXAMINATION OF FEDERAL AEROPLANE PILOTS

The Aeronautics Branch of the Federal Department of Commerce has ruled that all federal pilots must pass a satisfactory physical examination made by physicians designated by the Secretary of Commerce before being granted pilot licenses either for flying or training purposes. They have further ruled that such pilots must be re-examined periodically.

The examination of candidates covers in a rather detailed fashion the examination of the eyes, ears, nose and throat, with particular attention directed towards the problems of equilibrium. A general physical examination is required in which the nervous system receives especial attention. There are now about 750 medical examiners designated as acceptable by the Secretary of Commerce.

This ruling of the Department of Commerce is in harmony with the resolution adopted by the American Medical Association in general assembly in Portland, Oregon, in July of 1929.

Whereas, The Aeronautics Branch, Department of Commerce, has organized a medical service for the physical examinations of civil pilots and prospective pilots, in the interests of safety; and

Whereas, The physical standards adopted are in keeping with those adopted universally, and have reduced aircraft accidents from physical causes to a minimum; and

Whereas, The department has required these examinations to be made only by designated physicians in the interest of uniformity and control and in accordance with the custom adopted for the Army and Navy and in other countries; and

Whereas, The selection of examining physicians by the department has been based on training as flight surgeons or its equivalent, or on group examinations by specialists, a high standard of examination has resulted; and

Whereas, The department requires that all examiners hold the degree of Doctor of Medicine, be licensed to practice medicine under the laws of their respective states, and further requires that the appointees be recognized as ethical practitioners in their respective localities, thereby supporting the high standards advocated by this Association, be it

RESOLVED, That the American Medical Association at its stated assembly in 1929 endorses the medical work of the Department of Commerce, its methods of physical examination and its method of selection of medical examiners, and urges that the same high standards be continued and offers the support of the American Medical Association in furthering the specialty of aviation medicine; and be it further

RESOLVED, That a copy of this resolution be sent to the President of the United States, the Secretary of Commerce, and the Secretary of each state medical society.

STATE HEALTH COMMISSIONER'S PAGE

 Henry Albert, M. D. 

PREVALENCE OF COMMUNICABLE DISEASES

The most prevalent diseases for the past month have been chickenpox, measles, scarlet fever, and smallpox.

DIPHTHERIA

Diphtheria fell off a little, there being a decrease of 11 in the number of cases of this disease.

MEASLES

Measles increased by 2 1-2 times the number reported the previous month. For the month of October it was nine times what it was for September. This tends to suggest that we are entering upon a "measles year." An increase in the number of cases may be expected until the end of March. It is almost impossible for an individual to escape measles for a life-time, but it is relatively easy to postpone an attack until after the age of five years. In infants and children under this age, measles is a more serious disease than in older children. The prophylactic use of convalescent or parent serum, plasma or even of whole blood is recommended for susceptible children who have been exposed to a case. These may be obtained from other children or parents. A further discussion of this subject will appear next month.

SMALLPOX

During the last month, 211 cases of smallpox were reported for the State. This is more than twice as many as in October. This caused 422 persons, at least, to spend an aggregate of 16 years in quarantine. For the same month 42 cases of diphtheria were reported. With an attendant on each case a total of three years was spent in quarantine. Both diseases may be prevented by immunization, but since prevention was not applied, a total of 19 years of valuable time was wasted.

CHICKENPOX

Chickenpox was almost 5 times as prevalent as for the previous month. With the increased

prevalence of smallpox the difficulty of a differential diagnosis should be kept in mind.

TYPHOID FEVER

Ninety-four cases of typhoid fever were reported with the greatest number appearing in Clinton. Although following an investigation by this department the outbreak was checked, 15 deaths resulted. Typhoid fever has been reported every month during this year. With five outbreaks since August, two of them with more than 70 cases each, the total cases reported for eleven months is 270. This is more than has been reported for any of the last five years, the average for that period being 140 cases. The next highest number for any of the previous five years was 221 in 1927.

TULAREMIA

One case of tularemia was reported from Muscatine. In a "health message" on the subject issued by the department December 9th, the following four precautions were recommended:—

1. Do not dress a sick rabbit. A rabbit which does not hop away in lively fashion is probably a sick one.
2. Wear rubber gloves when dressing rabbits and other small game.
3. Be suspicious of any small game if internal organs are studded with small light colored spots. This condition may be tularemia.
4. Rabbits should be sufficiently cooked so that no red blood or red meat remains. It is then not only safe, but delicious.

PNEUMONIA

This disease may be expected to increase during the next two or three months. Pneumonia rarely attacks normal healthy persons, but almost always follows some other disease or some exposure or shock. It is more prevalent in cities where there is greater opportunity for contact with respiratory infections. Attention to the treatment of colds, measles, grippe, and tonsilitis is a good preventive measure against pneumonia.

We may expect a marked increase in measles,

scarlet fever, and smallpox. Constant vigilance and proper medical care will prevent much illness and result in many more recoveries than might otherwise be the case.

IOWA NOT TO BE IN THE MORBIDITY REGISTRATION AREA OF THE UNITED STATES

The United States Public Health Service, is arranging for a morbidity registration area in this country. To be eligible, a state, city or other district must have at least 75 per cent of its cases of communicable diseases reported. It is the judgment of this Department that Iowa is not measuring up to this desirable public health standard. It will accordingly not make applications for admission to the morbidity registration area of the United States at this time.

Any city which believes that 75% of its cases of communicable diseases are being reported and desires to apply for admission to the morbidity registration area, should write to the Department at once.

GONOCOCCUS INFECTION IN THE MALE

A splendid fifteen page article dealing with this subject, including detailed directions as to treatment appears in the November 20, 1929 issue of "Venereal Disease Information." This is a monthly publication published by the U. S. Public Health Service. This particular number may be obtained from the Superintendent of Documents, Washington, D. C., for five cents (5c) (coin not stamps).

The subscription price of this valuable publication is only 50c a year. Any physician who treats cases of venereal disease can ill afford to be without it.

PHYSICIANS SHOULD SEE THAT YOUNG CHILDREN ARE IMMUNIZED

According to reports, the children belonging to the families of certain physicians are being well protected against both smallpox and diphtheria by immunization, whereas those belonging to other physicians have had no protection at all. The difference is quite obviously due to the physicians' reminding the parents of infants under one year of age that they should be protected against diphtheria by the time they are nine months old and against smallpox by the time they have reached the age of one year.

RELATION OF COUNTY BOARDS OF HEALTH TO LOCAL BOARDS OF HEALTH

Some persons have inquired as to whether or not the County Board of Health, if the County

Plan is adopted, will supersede in authority all Local Boards of Health within the County.

An opinion from the Attorney General just received is to the effect that the County Board of Health does not supersede in authority the Local Boards of Health, but will only act in conjunction therewith to guide and direct the public health activities within the County. The Attorney General further holds that the police powers remain with the Local Boards of Health, except such power as may be necessary to carry out the duties of the County Board of Health as prescribed by the State Department of Health.

It, therefore, is very obvious that the Local Boards of Health may, if they so desire, continue to function as such, even if a County Board of Health has been provided for. There is little question, however, that all Local Boards of Health of townships and smaller cities and towns will be pleased to be relieved of much of the local responsibility and turn such over to the County Board of Health.

HEALTH LAWS, OPINIONS AND COURT DECISIONS Published by the

STATE DEPARTMENT OF HEALTH

The State Department of Health has recently issued a one hundred eight page pamphlet containing all of the laws of the State of Iowa pertaining to the subject of health. It also contains decisions regarding health subjects by the Iowa Supreme Court and opinions of the Attorney General construing such laws.

The table of contents includes laws pertaining to the State Department of Health, County, Township and City Boards of Health and contagious diseases in general, with a special chapter on venereal diseases. It also contains laws regarding the disposal of dead bodies, public health nurses, the registration of vital statistics, the housing law, nuisances and the pollution of streams. It also contains the law pertaining to the practice of medicine and other professions licensed by the department on recommendation of the respective Board of Examiners.

The pamphlet contains an index which enables the special subjects to be readily found.

OUT OF STATE PHYSICIANS AND ANNUAL RENEWAL OF LICENSES

Several hundred physicians licensed in Iowa during the past ten years and now living elsewhere have failed to renew their licenses annually as has been required during the last five years. This has the effect of making their licenses void except by re-instatement on recommendation of

the State Board of Medical Examiners and on the payment of the delinquent annual renewal fee. The Board may require another examination before readmitting the person to good standing. All physicians licensed in Iowa and living either in or outside of the State should be sure to see to it that they have the annual renewal fee paid up-to-date.

PASTEURIZATION OF MILK

Although it is well known that any raw milk is liable to contamination and that the only really safe milk is that which has been pasteurized or boiled, it should be constantly kept in mind that the mere fact that a milk is labeled pasteurized milk does not necessarily mean that it may not be the source of infection. Pasteurization must be efficiently done. Every pasteurizing plant should be equipped with a recording thermometer so that the record of temperature may be kept and it may be known that the proper temperature is being constantly maintained. Then, also, the bottles into which pasteurized milk is placed should be "sterilized" by steam.

RECENT CORRECTIONS OF VIOLATIONS OF THE MEDICAL PRACTICE ACT

COURT GRANTS INJUNCTION AGAINST L. S. SCHROEBERL

On September 23rd a hearing of injunction was had before J. A. Henderson, Judge of the District Court at Rockwell City, to determine whether one L. S. Schroeberl, Manson, Iowa, was practicing the healing arts in this state without a license. After hearing all of the evidence, some of which was expert, the Judge granted the attorneys for the state and defendant time to file briefs supporting their contention. The securing of the injunction in this case by the state through Gerald Blake, Assistant Attorney General, after proper evidence had been secured by Herman B. Carlson, Legal Investigator, State Department of Health, will no doubt tend to deter others from attempting to practice without a license. Mr. Schroeberl had been operating in Manson, Iowa, for some time and had an office in the Long Hotel, where he received his patients and examined them. His patients were numbered by the hundreds. His fee for treatment was \$1.50.

STATE ASKS THAT O. A. KINSEL BE RESTRAINED

Injunction proceedings have been instituted by the State of Iowa through Gerald Blake, Asst.

Attorney General, against Dr. O. A. Kinsel, Naprapath of Tipton, Iowa. Kinsel has an office upstairs in a down town building in Tipton; has regular office hours and advertises that his business is to help people succeed in restoring their health. He also states that Naprapathic treatments are very beneficial and asks those who see his newspaper ads to write him and Naprapathic literature will be sent upon request. Kinsel is not licensed in any way to practice any of the healing arts in this state. Herman B. Carlson, Investigator for the State Health Department, found that Kinsel had quite a number of patients in and around Tipton. Goitre, Mr. Kinsel states, can be cured and is being cured by Naprapathic treatments. An injunction restraining Kinsel from future practice will, no doubt, be granted by the District Court of Cedar County.

THE NATIONAL SOCIETY FOR THE PREVENTION OF BLINDNESS

Notice has been received that the annual conference of the National Society for the Prevention of Blindness for 1929 was held in St. Louis, Missouri, on November 11-13. At this conference such topics as the conservation of vision in industry, social hygiene in relation to the prevention of blindness, trachoma, and problems of sight-saving, particularly in children, were discussed.

Persons interested in this field of preventive medicine can secure greater details of this conference by addressing the National Headquarters, 370 Seventh Avenue, New York City.

POST-GRADUATE COURSE IN OTOLARYNGOLOGY

The ninth intensive winter course in otolaryngology will be given in Philadelphia beginning Monday morning, February 3 and ending Saturday, February 15, 1930. The course consists of fifty hours of lecture and demonstration covering the anatomy, physiology, pathology, diagnosis and treatment of diseases of the external, middle, and internal ear, and the intracranial complications of middle ear disease. Special attention will be given the functional hearing and labyrinthine tests. In an extra evening course, the surgery of the mastoid will be covered.

The third intensive winter course in diseases of the nose and accessory sinuses will be given during the same two weeks, but at different hours. This arrangement will allow those coming from a distance to take all three courses.

For full particulars address George W. Mackenzie, 1724 Spruce Street, Philadelphia, Pa.

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SECTION ON MEDICAL HISTORY

Elsewhere in this number of the Journal will be found a section devoted to the history of medicine in Iowa. This section is sponsored and edited by a committee authorized at the last annual session of the Iowa State Society. The president, in accordance with this authorization, appointed the following Committee on Medical History of Iowa: Dr. David S. Fairchild, Clinton, Chairman; Dr. William Jepson, Sioux City; Dr. Frank M. Fuller, Keokuk; Dr. Arthur D. Woods, State Center; Dr. Walter L. Bierring, Des Moines, Secretary.

The Committee is particularly fortunate in having Dr. Fairchild, the real historian of Iowa Medicine, as Chairman. It recognizes that his experience and advice will be invaluable in the collection and publication of Iowa medical history. Its labors will be greatly lightened by the enormous amount of historical matter pertaining to the history of Iowa Medicine that has already been collected by Dr. Fairchild. It is interesting to recall that Dr. Fairchild was a member of the first History Committee of the Iowa State Medical Society appointed by Dr. W. F. Peck of Davenport, the President in 1876. Dr. Fairchild has further served the State Society as editor of the official journal for some fifteen years, having resigned his editorship only two years ago. The Committee is now fully organized, and under the leadership of the chairman, Dr. Fairchild, has formulated plans of work which include the regular monthly publication in the Journal of the Iowa State Medi-

cal Society of abstracts and special articles of historical interest.

The first article of this series beginning in this issue is entitled "The History of Practice of Homeopathic Medicine in Iowa. In the February issue will appear a concluding section of this paper while the March issue will contain "Iowa Physicians Who Cultivated Other Fields than the Practice of Medicine."

It will be understood that these publications from the Committee will comprise only a portion of the Committee's activities. They will be further engaged in the collection of historical facts and data, biographical and otherwise, as may be obtainable for the completion of their historical records. Under authorization, they will publish when completed additional volumes of medical history of Iowa as their material may justify.

In devoting a section of the Journal to the publications and activities of this Committee, it is hoped that the active cooperation of every member of the Iowa State Medical Society may be enlisted so that records of the medical pioneers of the state may be properly chronicled and preserved, and that the achievements of Iowa Medicine have their proper place in the history of the state.

CALIFORNIA AND STATE MEDICINE

During the past decade, there has been a steadily growing sentiment created through the newspapers, lay publications, and, in some instances, by the medical press, to place the practice of medicine under civic, municipal, or state control. The frequent allusions of the lay press made to "the high cost of medical care" and the increasing paternalism evidenced in the fields of public health and preventive medicine are indicative of the reality of the problem. It seems useless to devote time or space to a summation of the evidence obtainable indicating that state medicine in this country has today an ever increasing number of proponents. Suffice at this time to acknowledge that such a problem does exist, and point out the program proposed by the California Medical Association to analyze and meet the situation.

At the last annual session of the California Medical Association in May of 1929, the House of Delegates adopted a resolution "instructing and giving the Council power to act in the investigation and promotion of measures which would bring about a betterment of the conditions having to do with sickness and injury, and in which the professional and economic interests of the laity

and members of the medical profession were involved." In pursuance of these instructions, the Council of the California Medical Association has conducted an extensive survey of the problem. It has given attention and thought to those methods now employed in Continental Europe, particularly in the Germanic countries under the title of "krankenkassen." The "panel system" employed in England has also received careful study. Each of these plans is considered highly undesirable.

The Council proposes at this time the adoption of a plan devised by Dr. Walter Coffey of San Francisco for the consideration of the California Medical Association, and have, in the November issue of "California and Western Medicine" advised their members of the details of this plan. They have cautioned the individual members of the Association, pending the adoption of this plan, to refrain from making new contracts with companies or corporations. The following paragraph taken from this announcement furnishes the essentials of California's proposed plan to combat state medicine:

"The plan proposed by Dr. Coffey would permit the care of industrial employees and their families to continue as at present, without serious interference with the medical practice methods now in vogue. The patient would choose his own physician from among those members of the California Medical Association who had stated they were willing to give medical and surgical services to the group of citizens coming under a certain industrial and income classification which would be outlined. The statements for services would be sent not to the patients, but to a central organization or office which, as trustee, would collect the bills and make repayment to the attending physicians. The money which would pay for services which were rendered would be collected through a monthly deduction on the wages of the employees, and would be turned over to the Association by the employers. In the plan under consideration the interests of all members of the California Medical Association would be safeguarded. If that or some other method is not put into operation, the bulk of this practice may drift into the hands of lay or other companies which will come into existence to care for this type of work. In due time, as the plan develops, the officers of the California Medical Association will send information to the component county societies."

NEBRASKA SECTION, AMERICAN COLLEGE OF SURGEONS

Announcement has been made of the annual meeting of the Nebraska Section of the American College of Surgeons which will be held in Omaha on February 3 and 4, 1930. Dr. H. C. Miller, Chairman of the Committee of Publicity, has extended to the Iowa profession a cordial invitation to attend any or all sessions of the meeting. The following formal program has been prepared:

Monday Morning Session

Management of the Uterine Cervix, Ralph H. Luikart; Radium Treatment of Cancer of Cervix. Lantern Demonstration, Palmer Findley; Non-Operative Clinic. Discussion of two preceding papers by Burton J. Lee, New York, Member of Committee on Treatment of Malignant Diseases; Orthopedic Clinic: Fractures about Elbow, Fractures Os Calcis, Fracture Femoral Shaft. Reduction by Simpson angulation, Myositis Ossificans, Typical Case, Compression Fracture of the Spine, Reduction by Traction and Hyperextension. Lantern Slide Demonstration, James W. Martin; Toxic Thyroidism, C. A. Roeder; Fractures: Slides and Moving Pictures of End Results, John R. Nilsson.

Monday Afternoon Session

Dr. Bowman C. Crowell, Chicago, Associated Director American College of Surgeons and Director of Clinical Research. Subject to be selected. Dr. Paul B. Magnuson, Chicago, Assistant Professor, Northwestern University Medical School. Subject to be selected. Dr. Burton J. Lee, New York, Member, Committee on the Treatment of Malignant Diseases, American College of Surgeons. Subject later. Monday Evening 6:30 P. M.—Dinner for Members.

Tuesday Morning Session

Study of Fascial Spaces of the Feet, Slides, M. Grodinsky; Sarcoma of the Shoulder, Early Treatment of Club Feet, Torticollis, Congenital Anomalies of Low Back, Cases Presenting Fracture Problems, John Prentiss Lord, Robert D. Schrock, Herman F. Johnson; Laryngeal Cases Demonstrated by Flateau Laryngoscope, P. Romonek; Ludwig's Angina, J. Frederick Langdon; Cleft Palate and Cleft Lip Cases, William L. Shearer; Congenital Hypertrophic Stenosis Operative Treatment, Alfred Brown.

Tuesday Afternoon Session

Dr. Seale Harris, Birmingham, Alabama, Emeritus Professor of University of Alabama.

3:00 P. M. to 6:00 P. M.—Instructional Conferences.

8:00 P. M. to 10:00 P. M.—Public Meeting.

In connection with this sectional meeting, a number of post-graduate instructional conferences have been arranged for Tuesday, February 4. Each conference will occupy one and one-half hours time, and will be limited to fifteen students. For these conferences, a fee of \$1.00 is charged to each student. For further information, address Dr. H. B. Lemere, 920 Medical Arts Building, Omaha, Nebraska.

County Officers Conference

[EDITOR'S NOTE: *The following papers were presented before the conference of County Officers held in Des Moines, November 7, 1929.*]

SECRETARY'S REPORT

Comparison of membership for years 1925 to and including 1929:

1925—2381—This was the greatest number and the dues were \$5.00.

1926—2313—Dues \$5.00.

1927—2248—Dues raised to \$7.50.

1928—2286.

Nov. 6, 1929—2311.

70—1928 Members delinquent in 1929.

2311—Total memberships paid to Nov. 6, 1929.

2381—Total Number affiliated with State Society, including delinquents.

COMPARISON WITH OTHER STATES

Dr. Olin West, Secretary of the American Medical Association in his Annual Report to the House of Delegates in Portland last July submitted a table showing the number of licensed physicians in each state and the number of members of the various state societies. According to this table Iowa stood *twelfth* with 71%.

New Hampshire87%	Oklahoma66%
N. Carolina78%	Vermont66%
N. Dakota78%	Kentucky64%
Maine77%	New York64%
Alabama76%	S. Carolina64%
Minnesota75%	West Virginia64%
Utah74%	Colorado63%
Virginia74%	Florida63%
Kansas72%	Louisiana63%
Massachusetts72%	New Mexico63%
Washington72%	S. Dakota63%
Iowa71%	Texas63%
Nevada70%	Georgia62%
New Jersey70%	Arizona61%
Pennsylvania69%	Mississippi60%
Connecticut68%	Wyoming59%
Michigan68%	Rhode Island58%
Wisconsin68%	Tennessee58%
Delaware67%	Missouri57%
Indiana67%	Nebraska54%
Illinois66%	California53%
Montana66%	Maryland53%
Ohio66%	Arkansas51%

Oregon49%	Idaho45%
District of Columbia.....35%	

It must be said however that with regard to Iowa at least these figures are very misleading because of the fact that the number of Iowa licensees as submitted to the American Medical Association from Iowa is 3306. As a matter of fact a very careful check which has just been completed shows that there are 3001 Iowa licensees residing in this state. The discrepancy of 300 is due to physicians having Iowa licenses who reside outside of this state; and since they can not be members of the Iowa State Medical Society they should not be included in arriving at a percentage figure. However it is reasonable to assume that the same relative error occurs in the statistics from other states, so that the figures quoted above are valuable for comparative purposes.

As a matter of actual fact the Iowa State Society has a membership which is 80% of all licensed physicians actually living within the state of Iowa. The 3001 Iowa licensees residing within the state are distributed as follows:

Members	2311
Delinquents	70
Eligible Non-Members	307
Ineligible Non-Members	128
Not in Practice	81
Licensed since June 1	104
	3001

Special attention should be given to two facts in connection with the above statistics: in the first place it was necessary to estimate the eligibility and ineligibility of physicians in four of our ninety-seven societies because of the fact that even after a year of consistent effort to get a report from these counties, we still do not have in the state office, reports of the action of the Board of Censors on the non-members in those four counties. Over a year ago, prior to the Membership Campaign, reports were asked for so that we would have in the state office an official list which in accordance with the by-laws would record eligible and ineligible non-members as reported to us by the various county societies. As previously

stated, ninety-three societies have reported. The following have not: Humboldt, Linn, Polk and Taylor.

The second important consideration is to properly handle the one hundred newly licensed physicians. The first step is for each county board of censors to pass upon them at the earliest possible moment and the county secretary to immediately report such action to the state office so that we can list them as definitely eligible or ineligible.

The next step should be to invite those eligible men into membership. Out of such a list it is reasonable to expect ninety or more eligible physicians who could be added to the resources of the state and county societies. But of far greater importance is the effect upon the character and future of these young men entering our profession. To immediately take into the folds of organized medicine every worthy young physician will not only extend to him a brotherly hand of helpfulness but will form a bulwark for the safety of our organization in years to come.

These new licensees are distributed among the counties of the state as follows:

Appanoose	1	Jefferson	1
Blackhawk	5	Johnson	24
Boone	2	Jones	3
Buena Vista	2	Keokuk	1
Calhoun	5	Kossuth	2
Carroll	1	Lee	1
Cass	1	Linn	7
Cerro Gordo	1	Mahaska	2
Clarke	1	Marion	1
Clinton	1	Monroe	1
Dallas-Guthrie	1	Montgomery	1
Des Moines	1	Page	1
Dubuque	1	Pottawattamie	3
Fayette	2	Sioux	1
Floyd	1	Story	1
Hamilton	2	Taylor	1
Hancock-Winnebago	1	Union	1
Harrison	1	Wapello	2
Henry	1	Winneshiek	1
Iowa	1	Woodbury	2
Jasper	2	Worth	1
Wright	1		

The secretary of each of these counties will shortly receive a list of these new physicians with the request that the action of the censors be secured at an early date and the results transmitted to the state secretary's office. The prompt cooperation of the officers of the county societies in this matter is extremely important.

There are twenty-three societies having as members every eligible physician in the county. They are:

Adair	Jones
Adams	Marion
Audubon	Marshall
Boone	Mitchell
Cass	Montgomery
Chickasaw	Osceola
Dickinson	Palo Alto
Floyd	Pocahontas
Grundy	Winneshiek
Howard	Union
Ida	Poweshiek
	Worth

The percentage of members in the rest is as follows:

Scott	99%	Buchanan	85%
Shelby	99%	Buena Vista	84%
Webster	98%	Butler	84%
Hardin	97%	Clinton	84%
Jackson	96%	Hancock-Winn.	84%
Lee	96%	Story	84%
Benton	95%	Decatur	83%
Blackhawk	95%	Hamilton	83%
Greene	95%	Henry	83%
Kossuth	95%	Lyon	83%
Sioux	95%	Monroe	83%
Bremer	94%	Clarke	80%
Cerro Gordo	94%	Warren	80%
Franklin	94%	Clay	79%
Johnson	94%	Iowa	79%
Wapello	93%	Jasper	79%
Emmet	92%	Harrison	78%
Madison	92%	Appanoose	77%
Pottawattamie	92%	Cedar	77%
Calhoun	91%	Page	77%
O'Brien	90%	Wayne	77%
Carroll	89%	Fayette	76%
Woodbury	89%	Jefferson	76%
Dallas-Guthrie	88%	Plymouth	76%
Dubuque	88%	Mills	73%
Muscatine	88%	Lucas	69%
Sac	88%	Ringgold	69%
Tama	88%	Mahaska	68%
Washington	88%	Allamakee	67%
Davis	87%	Crawford	67%
Des Moines	87%	Van Buren	63%
Monona	87%	Fremont	61%
Wright	87%	Delaware	53%
Cherokee	86%	Keokuk	53%
Clayton	86%	Louisa	53%

These statistics are shown on the big map, a red star indicating 100% and the other percentages being shown in figures.

TREASURER'S REPORT

The financial affairs of the Iowa State Medical Society are in sound condition. Although this is the month during which our resources are at their lowest ebb, due to the fact that dues begin coming in next month, we have on hand today, \$36,-450.40. This is a gain of \$1,452.14 over Nov. 1st last year, which is substantially the same as the \$2,000 gain which I reported to the House of Delegates as of May 1, 1929. We have been able to achieve this very satisfactory result in the face of increased expenditures, because of an increase in income. During the 12 months ending a year ago the income was \$25,028.85. For the past 12 months the income was \$28,384.07. This gain in income of \$3,375 has equalized the increased expenditures and still left a net gain. But it is true that during the year ending November 1, 1928, as well as other preceding years, the society was laying aside larger amounts of money due to a less active state program than the present. The gain during the year November 1, 1927 to November 1, 1928, was \$4,974.70 (as compared to the present gain of \$1,452.14). The items of increased cost in addition to the salary of the managing director are: Medico-Legal \$500 which is due to the fact that this is a form of expenditure which is bound to vary from time to time, stationery and printing \$600 which was in part due to legislative activities, \$500 due to a slight increase in rent and to the necessity of purchasing additional office equipment which adds to our total assets.

Our principal increase in income is from Journal advertising and from a better system of collecting money due the society for reprints. On the latter account we have a gain of \$500 and for Journal advertising an increase of \$600.00, which coupled with savings in costs of printing and engraving shows a total net profit of \$2,621.14 for the last twelve months. For the preceding twelve months there was a loss of \$194.28. The figures are as follows: For the year ending November 1, 1929, total Journal income was \$8,618.82 and the printing costs were \$5,997.68, the difference or profit being \$2,621.14. For the twelve months ending one year ago the total income was \$7,-249.10 and the total paid for printing \$7,443.38, showing a loss of \$194.28.

FINANCIAL REPORT
of the

IOWA STATE MEDICAL SOCIETY

I. COMPARISON OF INCOME:

	Nov. 1, 1927 to Nov. 1, 1928	Nov. 1, 1928 to Nov. 1, 1929
Dues	\$17,248.50	\$17,230.00
Advertising	6,664.58	7,421.65
Reprints	525.47	1,098.07
Subscriptions	51.70	71.00
Sales	7.35	28.10
Exhibit Acct.		2,004.00
Interest	531.25	531.25
TOTAL	\$25,028.85	\$28,384.70

II. COMPARISON OF EXPENDITURES:

	Nov. 1, 1927 to Nov. 1, 1928	Nov. 1, 1928 to Nov. 1, 1929
Miscellaneous	\$ 205.84	\$ 104.98
Rent & Office Supplies.....	1,398.74	1,933.95
Telephone and Telegraph....	171.94	444.77
Stationery and Printing.....	654.47	1,233.42
Officers' Salaries	2,905.00	2,825.00
Managing Director	2,142.69	6,913.04
Office Salaries	2,546.89	1,858.00
Journal Printing and En- graving	6,655.11	5,288.25
Reprints	788.27	709.43
Trustees	72.38	331.80
Council	332.05	182.92
Medico - Legal	1,257.50	1,735.13
Annual Session	420.19	2,247.72
Secretary's Conference	473.56	931.88
Speakers Bureau		49.38
Legislative Comm.		142.26
TOTAL	\$20,054.15	\$26,931.93
INCOME	25,028.85	28,384.07
Net Gain	\$ 4,974.70	\$ 1,452.14

III. COMPARISON OF JOURNAL PROFIT.
INCOME

Advertising	\$ 6,664.58	\$ 7,421.65
Reprints	525.47	1,098.07
Subscriptions	51.70	71.00
Sales	7.35	28.10
	\$ 7,249.10	\$ 8,618.82

EXPENDITURES

	Nov. 1, 1927 to Nov. 1, 1928	Nov. 1, 1928 to Nov. 1, 1929
Journal Printing and En- graving	\$ 6,655.11	\$ 5,288.25
Reprints	788.27	709.43
TOTAL	\$ 7,443.38	\$ 5,997.68
Net Loss	194.28	
Net Gain		2,621.14

MEMBERSHIP DUES IN ADJOINING STATES

The annual membership dues in the middle western states are as follows:

Minnesota	\$15.00
Michigan	10.00
So. Dakota	10.00
Wisconsin	10.00
Kansas(Maximum)	10.00
Illinois	8.00
Missouri	8.00
Nebraska	8.00
Iowa	7.50

The average for the eight states surrounding Iowa is \$10.00. Iowa thus has the lowest dues of any of the neighboring states and is \$2.50 per year less than the average of similar societies. If Iowa physicians were to contribute the average of what their neighbors are doing it would increase our income between \$5,000 and \$6,000 per year. While such an increase would scarcely be noticeable to the individual member, yet it would greatly enhance the power and usefulness of the Iowa State Society.

REPORT OF LEGISLATIVE COMMITTEE

Since this committee has fully reported its activities during the Forty-third General Assembly both in the House of Delegates (printed in the July Journal) and at various county society meetings, it is unnecessary to repeat here the story of the nominal success of this committee through the enactment of the three measures in which the society is interested, the County Health Bill, the Law Enforcement Measure, and the Workmens' Compensation Amendment. What has not been told is the story of the offhand consideration given the first two measures by many of our legislators and the stubborn unfair opposition to the Workmens' Compensation Amendment. As you know, all we succeeded in doing was to get the former limit of \$200 for all medical, surgical and hospital services raised to \$300. That was the result of a thoroughly unsatisfactory compromise forced upon us by the political and lobbying strength of the interests opposed to giving hospitals and physicians fair treatment, and by our corresponding lack of political influence.

It is the purpose of this report to impress upon every officer here that we can expect little from future legislatures unless we mend our ways. The members of the Iowa State Medical Society could be the most powerful single influence in this state if they chose to become so. Do not misunderstand me; I do not mean that we can or should ever want to have a controlled group or clique within the legislature, for that would be as bad for us as it would be for our commonwealth. What we do want is to fill our State Offices and

legislative halls with men who are honest and fearless and who will therefore give fair consideration to any proposal which might be laid before them.

I want to urge and insist that the men here today determine to go back home and awaken the members of their respective societies to the need for direct political action on our part.

The Iowa physician today as a responsible member of his community and as the only one who can properly advise with regard to health and medical legislation has a great responsibility to see to it that no legislator represents him and his people who can, when he comes to Des Moines, be unduly influenced or prejudiced by selfish interests.

We have no selfish motives and no axes to grind but when the hospitals of the state are refused fair treatment such as was the case in the Workmens' Compensation Amendment it is time for us to wake up to the fact that many counties in this state are sending to the Senate or House of Representatives men who represent not their constituency but certain special interests within the state. It is my belief, based upon the experience of other states, that the medical profession within a county or senatorial district could if they turned their minds to the task defeat any candidate of the wrong type and elect any man who they found worthy to represent that community.

Already many of you know of specific situations within your own electoral districts which should be called to the attention of your friends and patients. Others of you will be informed of such situations through this committee.

In conclusion I want to urge that you go back to your societies and press them to take an interest and activity in local politics which will place you in a position to do great things for the good of our commonwealth.

COUNTY HEALTH UNIT

D. C. STEELSMITH, M.D.
Deputy Commissioner of Health

It is fitting and proper that I partly deny your accusation of being personally responsible for the presentation and passage of the County Unit Law given us by the last legislative session. Without the aid of the Legislative Committee of the State Medical Society, we probably would have failed. Too much cannot be said of the activities of this committee. They were everlastingly on the job looking after your interests—and the interests of the public in this great commonwealth.

We have heard much today of medical econom-

ics. We have heard many problems presented but with this permissable County Unit Health Law, I feel we have the plan of solving the problems discussed. It has been my pleasure to discuss this measure with twelve county medical societies and I have found the medical practitioners taking kindly to the principles of the law. If the public were fully aware of the facts connected or associated with these problems of medical practice, the problems discussed would solve themselves. The full-time County Health Officer with his trained assistants would, with facts, crystallize the public opinion to the point that the public would demand certain changes.

Just last evening I happened to be in a physician's office when the Sheriff of that county presented a criminal for treatment of secondary syphilis, who had been sentenced to jail for a period of six months. This prisoner was a picture of "poison"—he was dangerous to any person with whom he might come in contact and dangerous to every citizen of the community. The history of the case was this. In January, 1928, he was found to be afflicted with syphilis in the initial stage and was committed to our University for treatment as an indigent. After one course of treatment with an arsenical, he was sent to his home community and ordered to return to the physician who examined him for commitment, for treatment. This physician was asked to buy and pay for arsenicals and give service to this patient (a certified indigent) without any compensation.

If ever there was a county charge and responsibility, this man was one. The county had spent more than \$150.00 for eight or ten treatments covering several weeks time and then had asked the home physician, who helps pay the taxes, to buy material and treat the indigent case so dangerous to the community, without pay. If the physician would have treated the case for a year and sent his bill of \$250.00 to the Local Board of Health and they have certified same to the Board of Supervisors, probably the bill would have been cut in half or wholly unallowed. Since the patient's commitment papers were still effective, the Sheriff was advised to take his charge to Iowa City for further treatment.

A full-time Health Officer would no doubt be able to advise the public of the dangers of such cases and public opinion would demand those responsible for the proper care of indigents to see to it that the public would be protected.

Under this permissible County Unit Law, the county medical society will have three representatives on the County Board of Health of not

more than eleven members, who will direct the policies and activities of the Unit.

The full time County Health Officer would make for uniformity of quarantine and relieve all practitioners of the duties incidental thereto. Methods of prevention of disease would be inaugurated and the practicing physicians would be induced to practice more preventive medicine, filling a necessary field demanded by the public so much of later years.

The first procedure to follow toward the adoption of the County Health Unit should be a survey of all official and non-official or lay organizations now interested in public health activities within your county. Ascertain how much money is now expended, by whom and for what results. Ascertain just what organizations could derive benefit from coordination and correlation under a trained Director, and how many would agree to "throw in" for a County Health Unit. After ascertaining what is being done and the extra help necessary to add to the present personnel to make for the proper execution of the activities necessary and the extra cost thereof, your Committee could no doubt be successful in raising the necessary funds from the Board of Supervisors and other sources. Then the Board of Supervisors should be solicited to appoint the County Board of Health.

Time and progress has caused the Township Unit for health activities to become obsolete, as well as ineffective. The County Unit has proved efficient and effective. We feel the adoption of the County Health Unit will prove of much benefit to the community and make any county a better place in which to live.

THE PROPOSED CONSTITUTION

CHARLES B. TAYLOR, M. D.

The American Medical Association, through its special committee, has made a careful survey and has presented a sample constitution which is being generally adopted by the states. The matter is up for our consideration.

We are not compelled to adopt the constitution as proposed; but the question before us is: is it expedient to change? I shall not attempt to point out the many differences in the old and new—that would be more than space allotted would permit.

In Article I the word society is changed to association. The ninety-nine counties have their societies and their association makes the Iowa State Medical Association. In Article II the en-

tire purpose is given in much more concise way: to promote the science and art of medicine, protect the public health, better the profession and to join other states in the making of the American Medical Association. That would seem to say it all. In Article III there is only one word changed; society to association. In Article IV the new simply states that "This Association shall consist of members who shall be members of the component county medical societies"—and that means those who have paid their dues. This section is very much shortened and simplified. In Article V there is but little change. Article VI is entirely new. In the article the Council is made the Board of Trustees. If this constitution is adopted there will be no Board of Trustees as we now have; but the Council will be the Board and will function as the business board of the Association.

Under the new districting plan there would be ten Councilors and they, with the president, president-elect and secretary-treasurer would make a total of thirteen. A quorum would be seven and capable of doing business. In Article VII there is no change; and in Article VIII there is nothing of great moment. Article IX of the new reads: "The officers shall be a President, President-Elect, a Secretary-Treasurer and ten Councilors. The officers except the Councilors, shall be elected annually. The terms of the Councilors shall be for two years and one half of the Councilors shall be elected each year. The Secretary-Treasurer shall be elected by the Council." There will be no Vice-Presidents, no Trustees except the Council, and the Councilors are elected by the House of Delegates. Other changes are minor.

The chief reasons for the change are that the old garment is outworn and cumbersome; that the new is in harmony with other states; that the old garment was made when the wool was washed, carded, spun and woven at home, when it looked well and served its purpose. But it has been patched and repatched; and what we now need is a new suit—one that is encompassing, comprehensive, lending dignity, becoming, utilitarian—suitable for our time—and such a suit is found in the proposed constitution.

ARTICLE VI.

O. J. FAY, M. D., Chairman
Board of Trustees

In order that the Iowa State Medical Society may keep in line with organized medicine, it has become necessary to make some important

changes in the Constitution and By-laws of the society. It will be recalled that the present By-laws and Constitution are essentially the same as when they were adopted a quarter of a century ago. At that time, there was considerable strife in the State Medical Society regarding the adoption of the new plan of government instituted by the American Medical Association. For some reason unknown to me, a board of trustees was provided for and has continued in the constitution since that time. Practically all of the states, in conformity with the proposed constitution, have vested the supervision and operation of the state society in a council and its established committees.

It is very evident to anyone who has followed the workings of the Iowa State Medical Society that the Council, which is composed of a member from each congressional district, has been more or less sterile throughout the years because of the conflicting authority and duties of the Trustees and Council. On careful analysis I am impressed with the idea that the State Medical Society should be represented by state-wide distribution of its officers and governing body. There is really no reason why a board of trustees should handle a portion of the affairs of the society and leave the council rather without head or tail. Under the present Constitution, neither the President-elect, the Secretary nor the Treasurer; is a member of either the Board of Trustees or the Council. Hence they have no voice in the conduct of the society except possibly during the three days that the society is in session. The Board of Trustees is essentially an auditing board and under our proposed constitution, this duty will be taken over by the Council, of which there will be thirteen members. Seven members of the Council will constitute a quorum. This will insure a fair geographical distribution of responsibility—and this is as it should be.

Lest you are not familiar with Article VI, I will read it in full.

The Council shall be the Board of Trustees of this Association. The Council shall have full authority and power of the House of Delegates between annual sessions, unless the House of Delegates shall be called into session as provided in the Constitution and By-Laws. It shall consist of the Councilors, the President, the President-Elect, and the Secretary-Treasurer of the Association. Seven of its members shall constitute a quorum.

Speaking as the senior member of the Board of Trustees, I am anxious that you shall know that I am 100% for the proposed changes and I

believe that it will do much towards creating a feeling of cooperation by this wide distribution of authority, and relieve those of us in Des Moines of the unjust criticism that we are attempting to run the society.

Organized medicine is absolutely essential to the welfare of the practice of medicine not only in Iowa but wherever scientific medicine is practiced. This is neither the time nor the place to expound certain views that I personally hold regarding the future of medicine; but in passing I would like to say that the people in the long run are going to have much to do with the kind of medical service they desire. You are probably familiar with the fact that there are a great many lay organizations as well as industrial insurance companies which even now are making a strenuous effort to tell us how medicine should be practiced. These forces will eventually win unless we have within our profession men, who are made of the kind of stuff we like to think the real statesman is made of, to look after not only our interests but to guide these well-meaning but ill-advised organizations.

There is a tradition that doctors must not enter into competitive advertising. The medical profession has stood strong on this matter not only to prevent unethical and unfair competition but to protect the public. One must not forget the pulling power of advertising in professional work as well as in the commercial field. It is the duty of organized medicine to educate the public in matters of scientific medicine. The layman should be taught the importance of the high standard of ethics which is applied to the practice of medicine. In this way the country has been protected from quacks, crooks and men who would enrich themselves through human ignorance. I believe that the great advances which scientific medicine has made during the last few generations has been made possible because of the high standard set by the profession itself, and the high plane which it has occupied during this time. This position we must maintain.

The public must, or should, concede to physicians the right to run their own profession—in that way the interests of humanity may be protected and lives saved.

The subject, Article VI, which was handed to me by our portly and able president, had its conception in his anti-Wilson mind to the extent that his conscience at least made it necessary for him to recall with sadness the bitter arguments engendered by Republicans who thought more of their party and power than they did of the government and the peace and the happiness of the

citizens of the world. That argument as you will recall centered around the famous Article X of the League of Nations. I sincerely hope that it will not be necessary to have such acrimonious discussion and disloyalty around Article VI of our proposed Constitution.

CARE OF THE POOR BY CONTRACT IN WATERLOO

C. W. ELLYSON, M. D.

In Black Hawk County, the city Medical Societies of Waterloo and Cedar Falls have held a County Contract for the care of the Poor since 1905 and 1915 respectively, for these cities and their immediate surrounding territory.

The balance of the county consisting of smaller towns and rural communities, with relatively little poverty, has been served by individual order from the Board of Supervisors or its agents.

Essentially the two contracts are similar so herein I shall confine my remarks to the contract of the Waterloo Medical Society. The Waterloo Medical Society was incorporated in 1913. Essentially the Contract calls for the following:

- (1) To furnish all Medical and Surgical service including medicines and supplies, except anti-toxin, salvarsan or vaccines to all poor so ordered by the Board of Supervisors or its agent residing in City of Waterloo, City Jail of Waterloo, Black Hawk County Jail and Black Hawk County Detention Hospital.
- (2) To furnish a list of physicians and surgeons with a schedule showing dates and duration of service time.
- (3) To furnish regularly a definite report on all patients treated under the contract.
- (4) To accept orders for service from (a) The County Board of Supervisors or Overseer of the poor in Waterloo. (b) The sheriff for the County Jail. (c) The Chief of Police for the Waterloo City Jail and (d) Supt. of County Detention Hospital.

To furnish a substitute if unable to respond reasonably promptly.

Consideration of this Contract has been \$2,000 per year for the above service during recent years.

While the Contract is far from ideal I shall enumerate a few of its outstanding advantages.

(1) Group service eliminates the low bid of the incompetent with the group still doing the work.

(2) Service for the poor is done on definite call from authority for a definite period after

which the physician is through with this type of county service.

(3) Proceeds used for better equipment and for local improvement of health conditions. This feature alone has been of great aid to the Waterloo physicians and those they serve in the furnishing of instruments and better equipment, the securing and financing of desirable conventions, clinics and other benevolences of a local nature; and the securing of essayists of high standing at the monthly dinners where the profession of the surrounding territory is invited to enjoy itself socially, intellectually and gastronomically. Professionally, I believe this investment pays the largest dividends of all expenditures.

A few of the disadvantages may be enumerated as:—

(1) There are occasional slackers—physicians always too busy to serve a non-pay patient. This has best been corrected by making each man responsible for his period and calls.

(2) A tendency of too many physicians and specialists to fail to report cases, work done and value of same on contract and thereby hamper the Society in securing adequate compensation on contract or often in even retaining same.

(3) Friction between the Board of Supervisors or their agents and other social organizations paid by private subscription.

(4) Inadequate pay of contract considering the amount of work done.

The last two objections, friction and insufficient pay, and the doing of a large volume of work for private agencies that should be included in the contract has driven the Waterloo Medical Society to give up Pre-Natal, Child Tuberculosis, and Eye, Ear, Nose and Throat clinics because of the conviction that the medical and surgical care of the worthy poor should fall squarely on the shoulders of the entire public, the tax payers, instead of on the shoulders of a few inadequately paid and equipped physicians and social workers.

THE MARION COUNTY CONTRACT

C. S. CORNELL, M. D.

The Marion County Medical Society both collectively and individually feels that it has solved the perplexing problem of medical services to the poor.

Prior to 1922 the question of county medical services was a hit and miss proposition. Two of the fifteen townships of the county had township physicians, i. e., members of the medical profession who contracted with the Board of Supervis-

ors to render services to the poor within their respective areas for a fixed sum each year. In addition to the above, there was a county farm doctor also under contract. The services rendered by the other physicians, the rank and file so to speak, were rather extensive but remuneration was another question. Individual bills for medical services were either cut in halves or thirds or worse yet—rejected when presented to the County Board.

On various occasions at our county society meetings, the question of medical services to the poor was brought up but no definite action was taken until seven years ago. The plan adopted at that time and still in vogue is as follows: first we incorporated; next we interviewed the Board of Supervisors and they readily consented to advertise for bids for medical services to the poor. Before submitting our bid, the books of the county auditor were consulted and a rough estimate was obtained of the average yearly amount expended for the four or five previous years for medical services. On this basis we submitted our proposal, which was later accepted. A contract was signed and a bond given. This procedure has been continued from year to year.

Our method of dividing the money is as follows: Each claim is made out on a uniform county claim blank, itemized, and endorsed by the township trustees or the county social worker. All these claims are filed with the county society secretary and audited by a committee of five each year. The state and county society dues for each member are first deducted, also the sum of from \$100 to \$150 which is left in the treasury for miscellaneous expenses of the society. The balance is then pro-rated among the members in proportion to the amount of services rendered by each. Non-members receive the same treatment in regard to individual claims as members.

This latter statement needs a word of explanation. Practically all of these eligible are members of our county society. One county seat physician has been expelled from the society and the social worker will not permit him to render a bill for services to the indigent. However near the county borders physicians from neighboring counties are often the ones most available and it is this class of non-members which are treated the same as members in regard to their bills.

For the past two years Marion County has been exceedingly fortunate in having an exceptionally efficient social worker who also bears the non de plume of county over-seer of the poor. She is a great adjunct to the successful operation of our

blanket contract. Her office serves as a clearing house for all indigent cases.

We are liberal in determining who is indigent, and are guided by Section 5297 of the Code. It reads as follows:

"Poor person defined. The words "poor" and "Poor Person" as defined in this chapter shall be construed to mean those who have no property, exempt or otherwise, and are unable because of physical or mental disabilities to earn a living by labor; but this section shall not be construed to forbid aid to needy persons who have some means when the board shall be of the opinion that the same will be conducive to their welfare and the best interests of the public."

In drawing up a contract great pains should be taken in regard to the written instrument itself. One should take care to see that it is inclusive as well as exclusive and specific. Our first contracts lacked these qualities, but we feel that we have incorporated them in our 1929 and 1930 models, and that we have now a smooth running machine. It runs as follows:

"The Marion County Medical Society hereby agrees to render to the pauper poor of Marion County, as the same are defined in Section 5297 of the Code, including inmates of the County Farm, and excluding persons confined in the county jail, ordinary medical and surgical care, not including, however, major surgical or other unusual special work for which other provisions are made by law for the poor of the County and State, and not including ambulance service or the use of diphtheria anti-toxin or insulin treatment for diabetes or the administering of other unusual serums, anti-toxins and the like, for a period of one year from the date hereof.

The question of hospitalization is very readily solved. We lack hospital facilities. Hence all pauper cases requiring hospitalization are cleared through the social worker and sent to Iowa City under the Perkins and Haskell-Klaus Laws. Only in extreme emergency is any other hospitalization considered.

Perhaps the greatest task of this whole proposition, is the annual auditing of claims and allowing the same. To simplify matters, a code of rules was adopted by the society, and it is understood between the individual members and the board of auditors that these rules are LAW. We feel that they are most essential. To enumerate them:

1. Make statement of account, charges itemized, each item complete.

2. Have social worker or township trustees endorse the bill as made.

3. Nearest physician shall attend the case. If other physicians attends, his charges shall be the same as the physician nearest would charge.

4. No consultation of a physician outside of Marion County shall be paid from this fund.

5. Anti-toxins and serums shall not be paid from this fund.

6. When bills for any case are getting large, it is suggested that the attending physician consult with the members of the auditing committee that a better understanding be had when the bill comes up for final disposition at the end of the year.

7. All bills not filed with the secretary at the end of the current year will be cut fifty per cent.

8. All bills shall be made out on uniform county claim blanks.

9. No bill for an individual case shall exceed the sum of one hundred dollars (\$100.00), in any given year.

I don't care to be accused of stealing the other fellow's thunder and therefore the question of the legal safeguards secured through incorporation is being passed on to Mr. Starzinger. However, I will have this to say quoting a member of the legal profession, "In making this contract to furnish medical aid, your organization should be in better position, by reason of its having been incorporated, than you would be under any form of voluntary association. This, for the reason that the corporation becomes a legal entity, and under ordinary circumstances the stockholders or members of the corporation would not have any liability for the corporate acts."

The majority of the members of our county society have policies with the Medical Protective Company of Ft. Wayne. The question arose whether or not the status of the individual members working under the county contract would be altered as regards medico-legal protection with the above named company. A communication relative to this matter brought the following reply from the legal department of the company.

"With regard to your inquiry, we understand that first you inquire if the contract which your County Medical Society has with the County Supervisors for rendering medical services to the poor, would in any way invalidate your policies with us. We advise that your protection under your individual policy with us would in no way be affected by this arrangement.

Secondly, you inquire what would be your personal liability in the event a suit would be brought against the County Society and some individual member who renders medical services under the above mentioned arrangement. Under this brief statement, and, as a broad proposition, we would say that there would be no individual liability upon you, for the liability would be upon the corporation and upon the individual who actually renders the services, and there would be no occasion for any liability arising under your individual malpractice policy."

Our County Board, social worker, members of the profession, and even the indigents themselves are well pleased with the practical application of the Marion County Contract.

Salesmanship and team work constitute the key note for the success of the county contract. First, it is necessary to sell yourself, the individual members of the society, and the County Board, on the proposition. Second, after the plan has been put in operation, it is a case of pulling together, or as J. Mason Knox says:

It is not the guns or armament
Or the money they can pay,
It's the close co-operation
That makes them win the day.
It is not the individual
Or the army as a whole,
But the everlastin' team work
Of every bloomin' soul.

THE HARDIN COUNTY CONTRACT

C. M. WRAY, M. D.

The Hardin County Medical Society was, I believe, one of the first to have a contract with the officials of the county for the care of the indigent poor. The first contract dates back to 1903, which was some ten years before the writer entered the county. Previous to this time I am told it had been the custom for the County Board to ask for bids and for the individual doctors to enter bids. From what I am able to learn there was a great deal of friction under that plan. Under the present plan I feel confident that the society is well satisfied, the Board of Supervisors seem well pleased and we all feel that the patients receive the same attention as private patients.

The main points in our contract are as follows: First: The members of the society agree to answer all calls at the request of the Board or proper person, except in case of inmates of the County home in which case Dr. Marsh shall be called. With exception of inmates of County home the patient has choice of any physician, and in case of diphtheria, scarlet fever, and smallpox when a fee is allowed similar to that for private patients. In case a physician not bound by this contract cannot be obtained, another can be called and the society pays such physician. Second: Surgical operations are included in contract. Third: All medicines are furnished except vaccines, anti-toxin, insulin, and I believe the arsphe-namin preparations. Dressings are furnished when such do not amount to more than five dollars when the county agrees to pay for them upon

presentation of a proper bill. Fourth: The contract states, "It is the desire of the society to co-operate in the hospitalization of the indigent poor so as to utilize the facilities of the State Hospital at Iowa City to the end that it may fit in with the state authorities' request for clinical material and likewise place at the disposal of the county indigent the best hospital facilities and professional care possible. In case of emergency or when it is determined that the expense will be less, the patients may be treated either at the Eldora Booth Memorial Hospital or the Ellsworth Hospital at Iowa Falls.

The society is incorporated and gives a bond. What do we do with the money? There has never been a division of spoils up to date, although a goodly sum has accumulated and very soon I feel some plan will have to be worked out for its use or disposition. All state and national dues are paid from this fund as well as all expenses of meetings, banquets, programs, etc. We pay our secretary a small salary and in addition pay him seven hundred dollars per year for the work at the County home. The secretary is Dr. Marsh who has acted in this capacity for more than twenty years. In this connection I know Dr. Marsh will allow me to say that in spite of the physical handicap of having lost his sight while in the active practice, we all consider him an efficient secretary and a real physician; and better than either, a prince of a man and a real friend. And if by having this contract we have been enabled to give him more pay than any one formerly secured for the work of the entire county, it has been a joy and a pleasure for us to have done so.

We feel that among the advantages of the contract system first comes the avoidance of competitive bidding by members which nearly always leads to strife and misunderstandings all around. Secondly we feel that it has done more to bring together the men of the county, keep them in the society, and cement them into a working organization than any other one thing. We find our Board of Supervisors inclined to be very liberal in all interpretations of the contract and anxious to co-operate in every way.

THE COUNTY CONTRACT

C. A. BOICE, M. D., Washington

Up to the time of leaving home to attend this meeting, no word had reached me that any aspiring or conspiring Senator had made a move to have a law enacted to relieve the doctor by funds from the public treasury. Despite the agonized efforts of certain Senators to get into the public

treasury with a scoop shovel and load up the farmer's wagons, sane judgment has prevailed and a law has been enacted which promises to be of much material benefit to the farmer. The basic requirement for aid is co-operation. The farmer must learn that in union only is there any strength. The fellow who prefers to play alone will receive little material benefit.

So it is with the doctor. Several times, I have been importuned by some doctor to run out of his town some medicine show, midwife, advertising doctor or other irregular. Almost without exception, the doctor making the request was not a member of the county organization and was in no way contributing to its success. The doctor who does not belong to his county society and contribute his mite to its success and progress is only going to get the crumbs that fall from the table and I don't believe that he is even entitled to that much enrichment. It is entirely beyond my understanding why and how any doctor should prefer to be out of the organization when by and through the organization only is there any possibility of advancement in either a material or scientific way. Even the Bible holds out no hope of salvation to the man who does not make a public profession. A lay writer, in a recent issue of the *Journal of the American Medical Association*, (No. 16, Vol. 93, page 1247) says: "I am convinced that medical science travels by airplane in an age of aviation, while medical organization lumbers along in a stage coach."

Only when the doctors in a given community (county) get together and stay together, will they be successful. Where the doctors are friendly—the patients stay at home; where the doctors are jealous and quarreling, the patients seek advice elsewhere. This has been demonstrated so often that no elaboration is called for at this time.

Bearing in mind the best interests of the local profession—and therefore the public as well—within the year, the Washington County Medical Society contracted with the county board of supervisors for the care of the county poor for a specified sum, this money to be paid the society secretary in quarterly installments. The amount in consideration is a fair average of the amount which had been made by individual doctors over a period of years.

How is it determined who is entitled to this service? Persons who believe themselves entitled to the service, go to the lawfully constituted authorities—the township trustees or the overseer of the poor and ask for an order; or the doctor, believing certain persons are deserving, asks for an order. If the order is granted, the service is

rendered and charged for at a rate according to a fee bill adopted by the society and approved by the county board. This fee bill in its essential schedules—house and office visits, mileage and obstetrics—is exactly the same as for private work. For surgery, fractures, X-ray work and anesthetics, seventy-five per cent of the private fee is charged. If no order is granted, then the charge may not be made against the contract. It is then up to the doctor to collect his own bill or do straight charity. There is no difference whatever from the custom in vogue previous to the contract period. This contract has nothing to do with fees paid doctors as health officers or for attendance on inmates of jails or county homes. The doctor is expected to furnish the usual medicines, but if vaccines, serums or anti-toxins are needed, the county furnishes them.

What is done with the money? The dues for every member are paid to the State Society and American Medical Association. Regular meetings of the society are held with good programs and good attendance. As we have the money, we are not hesitant in spending what seems necessary. At least once a year, we have a banquet, to which the ladies and other friends are invited. Dean Houghton honored us with his presence at this year's dinner. We pay our secretary a small retainer. We do not at this time plan to divide the surplus but will have more than \$1,000 drawing interest soon. Next year, we plan to buy some books, subscribe for several special journals, procure a projection machine and rent films.

What, if any, are the apparent results? As was to be expected, it draws the doctors closer together, there is less bickering and jealousy, more co-operation and greater friendliness. Doctors cannot be together once a month and break bread without learning that the other fellow has some good qualities also. It will draw the line closer against those who really deserve aid and the notorious dead-head. It will cause the doctor to watch these people and do charity where charity is really indicated. Also the doctor will learn to subserve some of his own interests for the general good, and he will profit thereby greatly. I have in mind a society which had this plan in operation and it was thrown over by two or three doctors who wanted every cent they could get, and were unwilling to sacrifice personal interests for general good.

It is one of the steps which make for closer co-operation. It is a self evident fact that the closer the doctors are, the more ability they show, the more interest is taken in the profession, and the less they are troubled by irregulars. Pseudo-

practitioners can only thrive where doctors do not demonstrate that they have what the public wants—the ability to give health.

MEDICAL ECONOMICS COMMITTEE

October 22, 1929.

T. U. McManus, M.D., Chairman
Committee on Medical Economics.

Dear Dr. McManus:

In response to a request for advice as to the work which should be undertaken by the Committee on Medical Economics, it must be clearly kept in mind that this special committee was created by the House of Delegates and is responsible to that body, as shown by the minutes quoted below. The general assignment of duties is to be found in the concluding paragraph of the report made by the chairman of the council to the House of Delegates last May, as follows:

"Therefore the Council recommends that the House of Delegates instruct the present president-elect to appoint a committee of five, to be called the Committee on Medical Economics. This committee shall carefully consider the whole question of prevention of disease in mass and shall investigate matters affecting the economic status of physicians and shall report to the House of Delegates next year."

The situation which called for the creation of a committee to undertake such work was summed up in the following words (also a direct quotation from the Council report):

"The public, the profession, the official and the non-official health agencies all wish to know the charges to be made in prevention of disease in mass. The charges heretofore have ranged from nothing, cost of material used, half price, full price, and at so much per hour. Because of lack of knowledge of this subject many physicians are losing legitimate fees. Also several organizations in the state are promoting at public expense free clinics, and physicians are asked not only to contribute money for their support and furnish free professional service, but have been asked in at least one instance to pay for the medicines and dressings that they personally used in the clinic."

Therefore the need of this committee arises from there being repeatedly brought to the councilors and officers of the state society, problems affecting the "economic status" of physicians and their relation to "treatment in mass." Some of those most frequently occurring are:

1. Prevention of disease in mass: Should school children be inoculated at school, at home,

in the office? What should be charged for such services?

2. How, and at what price, should periodic health examinations (as advocated by the A. M. A. and promoted by various lay organizations), be given?

3. What is the proper ethical attitude toward free clinics and dispensaries operated by charitable organizations or tax money?

4. How shall the individual physician or the county society determine the proper attitude toward, and working relations with, the various public health agencies? (A list of approved agencies and suggestions for ethical procedure, are frequently asked for.)

5. Can organized medicine ethically advertise, and is it desirable?

6. What is the proper attitude toward scientific education for physicians if fostered or paid for out of funds formerly used for Shepard-Towner Clinics?

There are many other specific questions, but most of the acute problems confronting organized medicine in Iowa come under the above problems, and it would be a splendid contribution to the practice of medicine if they can be answered in at least temporary form when this committee reports to the House of Delegates next May.

Note that these problems are new problems. Few, if any of them existed a generation ago. Our increasing population and the modern tendency to centralize and work in groups is forcing wholly new problems upon our profession. We need new principles, or revivification of old ones, to meet the demands of modern civilization with its social agencies and public welfare activities. We have a code for the private practice of medicine which is 2000 years old. But today we need also a code of ethics for public health medicine, and it is that tremendously vital problem which this committee is asked to attack.

MEDICAL ECONOMICS COMMITTEE MEETING— MARSHALLTOWN, OCTOBER 22.

At 8:50 A.M., Tuesday, October 22, the committee on medical economics met in the Tallcorn Hotel, those present being Chairman McManus and Drs. Childs, Donohue and Nervig, and also President Peck and Mr. Blank.

Dr. McManus called upon Mr. Blank to read the message from the chairman of the Council regarding the tasks of the committee, after which the committee entered into a discussion of question number one and the members referred to their various experiences in different schools and different communities.

After adjournment to hear Dr. McManus read

his paper on "Treatment in Mass" before the conference of Social Work, the committee reconvened and after continued discussion of subject number one and of questions 2, 3, 4 and 6 decided upon the following resolutions.

1.—*Resolved*: That we recommend that vaccination and immunization be done at the office by first choice and not in the schools as such work can not be done in a sanitary way in the school room; and that, where such work is done in mass, for a brief period (such as a month) and at fixed daily hours a reduction (such as 50%) of the regular charge be made and the serums and vaccines be furnished by the physician.

2. *Resolved*: That health examinations should be made by the family physician for an individual fee depending upon the extent of the examination; and that any other method should be undertaken only upon approval of the county medical society.

3. *Resolved*: That no member of the Iowa State Medical Society should contribute services to any free clinic or dispensary unless it has the approval of the county medical society.

4. *Resolved*: That examinations in connection with 4-H Club health contests, baby health contests, and similar examinations, should be conducted exclusively by members of the county medical society upon approval by the county society, and that such service should be contributed without charge.

6. *Resolved*: That in accordance with the resolution of the House of Delegates last May disapproving of Shepard-Towner Clinics, we urge that the State University College of Medicine proceed to offer post-graduate instruction throughout the state as a substitute for the clinics formerly conducted by the University Extension Division.

7. *Resolved*: (County Contracts) No contracts for the care of the county poor shall be entered into by an individual member unless it shall have had the approval of the county society.

REPORT OF COMMITTEE ON HISTORY OF MEDICINE IN IOWA

In accordance with the action of the House of Delegates at the May, 1929, session of the Iowa State Medical Society the President appointed the following Committee on Medical History of Iowa: Dr. David S. Fairchild, Clinton, Chairman; Dr. William Jepson, Sioux City, Dr. Frank M. Fuller, Keokuk; Dr. Arthur D. Woods, State Center, and Dr. Walter L. Bierring, Des Moines, Secretary.

The Committee is particular fortunate in hav-

ing Doctor Fairchild, the real historian of Iowa Medicine, as Chairman. It recognizes that his experience and advice will be invaluable in the collection and publication of Iowa medical history. Its labors will be greatly lightened by the enormous amount of historical matter pertaining to the history of Iowa Medicine that has already been collected by Doctor Fairchild. It is interesting to recall that Doctor Fairchild was a member of the first History Committee of the Iowa State Medical Society appointed by Dr. W. F. Peck of Davenport, the President in 1876.

As a result, largely of the recommendations of the Chairman, Doctor Fairchild, the Committee has formulated a plan of work which it desires to submit herewith for your consideration and approval.

1. The publication in the Journal of the Iowa State Medical Society each month of requests for additional historical facts pertaining to the development of the practice of medicine in the different counties, and particularly such data, biographical and otherwise, as may be necessary to complete our historical records.

2. To publish abstracts and special articles of historical interest. There are ready at present for publication two interesting reviews by Doctor Fairchild: "The History of the Practice of Homeopathic Medicine in Iowa," and "Iowa Physicians Who Cultivated Other Fields Than the Practice of Medicine."

3. To review all matter previously published with additional historical data collected by the Committee and after careful revision, publish the same in separate volumes for general distribution.

The Committee enlists the active cooperation and interest of every member of the Iowa State Medical Society, so that the records of the medical pioneers of Iowa may be properly preserved and the achievements of Iowa medicine have its proper place in the history of our State.

Fraternally and sincerely,
The Committee of the History of
Medicine in Iowa.

Walter L. Bierring, Secretary.

REPORT OF COMMITTEE ON MEDICAL EDUCATION

Your committee on Medical Education and Hospitals has nothing in the form of a report, except to make a few general statements relative to the scope of the work involved in the resolution under which we are serving.

The resolution specifically sets forth four fundamental propositions: (1) to collect information

relative to the medical care of the indigent sick in Iowa; (2) to secure information as to the costs of such care in Iowa compared with the costs in other states of relatively equal and like population; (3) to collect information as to the operation of the Perkins-Klaus laws as they pertain to the commitment of indigent persons to the University Hospital and the cost to the state of the same; to determine to what extent the operation of these laws supplies the Medical Department of the State University with proper clinical material for teaching purposes; (4) to collect such other information relative to Medical Education and Hospitals as may be of value to the profession of the state.

Any one of these four propositions calls for a prodigious amount of work.

The first relates to Iowa alone and is pioneer work in the medical forest of an agricultural state where the undergrowth gives mute testimony of many conflicts and compromises between scientific medicine on the one hand, and ignorance, superstition and legislative stupidity on the other.

The second proposition necessitates a comparison of Iowa with the states of California, Kansas, Colorado, Nebraska, Ohio, Texas, Michigan and others, all of which are so different in their class of population and industrial environment that a comparison is not only difficult but may lead to bewildering and conflicting conclusions.

The third proposition relates to the clinical material of the Iowa University Medical School and at once brings up for comparison and investigation the University Medical Schools of the states of California, Colorado, Georgia, Illinois, Indiana, Michigan, Minnesota, Nebraska, Ohio, Oregon, Tennessee, Texas and West Virginia.

The fourth proposition has latitude and longitude unlimited.

It is the desire of your committee to work with open and unprejudiced minds, and to bring before the body for final solution the unvarnished facts, facts that can be relied upon by the Medical Profession, the Courts, the Legislature and the Laity of Iowa. Already we have gathered a large amount of statistical material which will require days of painstaking and laborious work to sift out and get that which is applicable to our needs.

To this end it will be necessary to have the local perspective on these problems and you as the executive officers of the County Medical Societies are the only channels through which must come this information. Therefore we as a committee are asking you for your personal and collective co-operation in order that we may make our final

report the basic foundation for future medical practice in our great commonwealth.

Respectfully submitted,

Committee on Medical
Education and Hospitals,

B. L. EIKER, *Chairman.*

A. V. HENNESSEY.

A. W. ERSKINE.

MEDICAL EDUCATION AND HOSPITALS

A. V. HENNESSY, M. D.

You can readily see after listening to the report of the Medical Education and Hospital Committee that the program outlined covers a wide field for investigation and study. It is truly a Pioneer work, and there is no centralized source to turn to for this information. The sources are many and varied and are far reaching, involving the Doctor, Social work, Court Officers, County and State Officials, Educators and Comparative Statistics of other states.

We are desirous of gathering and obtaining all the necessary data, so that when this work is completed the Iowa State Medical Society and the people in Iowa will be able to determine whether or not these great problems are being handled in an economical manner, and if not, wherein do they need corrections.

In surveying these problems it is apparent that if this Committee is to complete its work it is necessary for us to have the aid and help of all the Medical Profession of this State. The Committee have neither time nor physical make-up enough to solicit each individually and we turn to you, the Executives of Organized Medicine representing the local communities; and ask you to aid us in gathering this data.

We expect to submit to you from time to time questionnaires relative to the matters referred to in the original resolution which when answered, will give us the necessary information as to how these problems effect you and your communities. You can readily see that the information obtained by this committee in its final work will necessitate investigation into fields other than those included in the practice of Medicine.

In your solicitation of information for the questionnaires you may be asked by some one to explain the reasons for such an investigation. A word from you at the proper time will facilitate the work.

We would also welcome any suggestion from you that is not set out in the questionnaire, that is happening in your community or that you are ac-

quainted with that may be of service to us in handling these problems.

We are appealing to you today for your help and moral support in bringing the work to a successful issue. May we have it?

MEDICAL EDUCATION AND HOSPITALS

B. L. EIKER, M. D.

Mr. President and Gentlemen: One of the greatest drawbacks to progress in all lines is the failure to recognize and admit facts. Most of us, if not all of us, can bear personal testimony to their unpleasantness. Nevertheless, soon or late, some place, somewhere; somebody or some organization; must meet the facts face to face; and act as the needs of the moment seem to indicate. Your committee must rely upon you, the local medical officers of the state, for the facts as they exist in your locality. It is for the good of Iowa, for the good of organized medicine, for your good and for our good that we get these facts accurately and promptly. Now, will you do this for us; will you help us that much?

THE IODINE EDUCATIONAL BUREAU

The offices of the Iodine Educational Bureau, a new organization, have been opened at 64 Water Street, New York City. Mr. J. J. Nichols is Director of the Bureau, which is supported by the Iodine Producers Association of Chile, South America. The Bureau will undertake considerable research work, and will collect and disseminate dependable information about iodine and iodine compounds. A fellowship has already been established at Mellon Institute, and several other fellowships will shortly be established at other institutions to follow up special lines of research investigation. The Bureau will be ready to cooperate at all times with others doing research work on the application of iodine in agriculture, industry, animal husbandry, and in the professions of medicine, dentistry, pharmacy, and veterinary medicine.

IOWA PHYSICIANS HONORED

The following Iowa men have been elected as officers or trustees of the Inter-State Post Graduate Medical Association of North America at its recent meeting in Detroit, October 21st to 25th:

Trustees: Henry G. Langworthy, Dubuque, Iowa; John E. O'Keefe, Waterloo, Iowa; Tom B. Throckmorton, Des Moines, Iowa.

Treasurer and Director of Foundation Fund: Henry G. Langworthy, Dubuque, Iowa.

PICTORIAL REVIEW ACHIEVEMENT AWARD

Announcement has been made that the \$5,000 award granted each year to the American woman who, in the opinion of the committee, has made the most distinctive contribution to the field of American art or science during the previous year, this year goes to Dr. Florence Rena Sabin, Fellow of Johns Hopkins University and member of the staff of the Rockefeller Institute for Medical Research. Dr. Sabin's research was made in medical science, and includes a complete study of nerve centers, the discovery of the processes involved in the development of blood cells, and the observation concerning functions of the monocyte.

It is of interest to note that Dr. Sabin is not only the recipient of this handsome award, but also that she is the first woman to have been admitted to and to have graduated from the medical department of the Johns Hopkins University; she was the first woman to be admitted as an interne in the Johns Hopkins Hospital; she is the first woman to become a member of the hospital staff and a member of the teaching staff of the medical school; she is the first and only woman to be made a member of the National Academy of Science, and the first woman to become a member of the Rockefeller Institute for Medical Research.

POST-GRADUATE LECTURES IN MEDICINE

Dr. Michael G. Wohl, formerly of the Mercy Hospital, Council Bluffs, and now Head of the Department of Research Medicine of Temple University Medical School and Chief of Metabolic Clinic of the Samaritan Hospital, Philadelphia, Pa., is giving a post-graduate course of twelve lectures on Medicine under the auspices of the Gildersleeve Study Club of the Academy of Stomatology.

TEMPLE UNIVERSITY

Dr. Charles E. Beury, president of Temple University, Philadelphia, broke the ground on October 14 for the new building of the medical school of that institution. The following additions have been made to the faculty: Dr. Chevalier Jackson, professor of bronchoscopy and esophagoscopy; Dr. Alfred E. Livingstone, professor of pharmacology; Dr. Max H. Bochrach, who resigned from the chair of neurology, became professor of psychiatry; Dr. N. W. Winkelman, professor of neurology; Dr. Temple Fay, professor of neuro-surgery; Dr. Matthew S. Ersner, professor of otology (Dr. Henry J. Off, the former occupant, being made emeritus professor of otology); Dr. William C. Pritchard, professor of histology and embryology; and Dr. Thomas Klein, professor of applied therapeutics.

Bohler's Method for the Treatment of Fractures

Perhaps one of the most interesting clinics in Vienna is that of the Dozent Lorenz Bohler at the Arbeiter Unfalls Spital (Workman's Accident Hospital). While the writer is not pursuing work in that line, it is of such importance and interest that a brief discussion of the type of work and methods used will not be amiss. As the name implies, it is strictly a workmen's accident institution. The first striking factor noticed is the amount of clinical material which daily enters the hospital. Fractures total (all types) between 2000 and 3000 a year; add to this a like number of crushing, lacerated, contused wounds, and one can have some idea of the amount of work. The lack of industrial development does not appear to be in ratio with the total number of accidents.

The next point of interest is the marked departure from methods ordinarily used in the States. Everything is simplified; one type of apparatus for the reduction and maintenance of extension of the lower extremity and a second type for those of the upper. Great stress is placed on muscle balance and anatomical relationship. All wounds, regardless of type, are treated in a similar manner—cleansing and application of some antiseptic, debridement when necessary, approximation of parts and the entire wound exposed to air. The air treatment markedly decreases the healing days. This simplification of treatment is rather in contra-distinction to the usual teutonic method of doing things, in that they appear to enjoy during the easiest, by the hardest possible means.

All fractures, regardless of type, are reduced and extension applied under local anaesthesia. The writer has observed the technique applied to practically all fractures except those of the upper vertebral calcium. In no instance has the patient been resistant to manipulation or complained of pain. The age has varied from three to eighty

years. The technique is as follows: For fractures seen at once or a few hours after injury, a 2% novocaine solution is injected directly into the site of the lesion, even if it extends into a joint. 20 cc. are used in ordinary fracture. The greater the dislocation and the hematoma, the quicker the anaesthetic spreads, and visa versa. In subluxations, the injection is made directly into the joint—e.g., shoulder, hip, knee, elbow, finger, etc. Anaesthesia results in two minutes, and lasts for several hours, so that if X-ray after reduction is unsatisfactory, it may be repeated, even four times in succession, without a new injection.

In fractures which are capable of being reduced when first observed a plaster cast is applied at once. No preparation of skin is made, either shaving, washing, or powdering, and the cast is applied directly to the skin. Blisters, if present, are opened by sterile needles and expressed; a small dry dressing is held in place by mastic.

The treatment Dozent Bohler practices is what he terms a "Functional Treatment." It is the complete, never-interrupted fixation of a well-reduced fragment with simultaneous active movements of as many as possible or all joints, and with avoidance of all pain. His theory of Functional use of a member is that all joints are kept from becoming stiff—namely, that use of the arm tends to prevent the shoulder from stiffening under immobilization, and walking on a leg keeps the immobilized ankle from stiffness. Quicker healing results; bone atrophy which is usually present in marked degree in cases treated without exercise, is not found in fractures with exercise. Ice tongs and Steinman nails are used to secure extension for femur fractures. The Dozent insists that the nail or tong must be able to rotate, as exercise is less painful. Extension is maintained for two weeks by the use of nail (through tibia for femur), then it is replaced by calico strips fastened to the thigh by zinc-gelatin paste.

Dr. N. Boyd Anderson of Des Moines, Iowa, who has recently returned from a year's study in European medical clinics, has furnished the accompanying article as the first of a series of reports of his observations while abroad. His article for the February Journal will discuss other phases of the Vienna medical clinics.

It is really quite remarkable to notice the absence of complications in old people, even those with femur neck injuries, when the above mentioned technique and active motion is carried out. Considerable use and very efficient results are derived from zinc-gelatin paste bandages. It is used to fix extension strips to the member as a supportive dressing when the cast is removed, and in any joint condition where immobilization is desired. The bandages do not irritate the skin, and salicylic acid is not necessary. One kilo is enough for five leg bandages. On all casts and zinc-gelatin bandages the following notations are made with indelible pencil:

- a. Drawing of broken bones
- b. Date of accident
- c. Date of reduction and cast
- d. Date of expected removal

In carrying out the same line of general technique for injuries and fractures, it has so simpli-

fied the hospital procedures that the volume of work is conducted without much effort on the part of the attending staff. The days of hospitalization have been markedly decreased, and the time lost, per individual, from his work has likewise been reduced.

There are no doubt certain flaws which one could designate in Dozent Bohler's line of procedure, yet one can not help but feel that the work is quite satisfactory. The results are good, and the patients are pleased. Since the establishment of this line of procedure, the rate of disability has been markedly decreased. From the fact that the days for hospitalization has been reduced to one-third or more, the injured individual does not have time in the majority of instances to develop that pernicious condition of hospitalitis which is so aggravating to both the doctor and the insurance company.

—N. BOYD ANDERSON, M.D.

SOCIETY PROCEEDINGS

Blackhawk County

Members of the Blackhawk County and Waterloo Medical Societies met Friday, December 6, for a six-thirty dinner at the Russell-Lamson Hotel. John H. Peck, M. D., President of the State Society, was present and spoke briefly upon proposed constitutional changes. D. C. Steelsmith, M. D., Deputy Commissioner of Health, Des Moines, presented the County Health Unit. Mr. Vernon D. Blank, Managing Director of the State Society, was another guest of the society and after referring briefly to state society activities, further discussed the County Health Unit. As a result of this meeting, the County Society voted in favor of a County Health Unit and a committee was appointed to investigate and develop a plan of action.

Boone-Story Counties Joint Meeting

The Story County Medical Society was host to the Boone County Medical Society at a meeting held in Ames, Friday, December 6. After a six o'clock dinner at the Sheldon-Munn Hotel, the scientific program was presented which consisted of a paper on Pernicious Anemia by Bush Houston, M.D., of Nevada. Ben G. Budge, M.D., Ames, opened the discussion and presented several patients as an aid to discussion. The meeting closed with the showing of the Canti Cancer Film.

Calhoun County Annual Meeting

At the regular meeting of the Calhoun County Medical Society which was held at Rockwell City,

Thursday, December 19, Dr. M. J. McVay of Lake City, was elected president and Dr. Paul W. Van Metre of Rockwell City, was re-elected secretary and treasurer.

Cerro Gordo County Annual Meeting

The Cerro Gordo County Medical Society held its regular meeting at the Hotel Hanford, Tuesday, December 17, at 6:30 P. M. Following the dinner, the regular election of officers took place and Dr. S. A. O'Brien, Mason City, was elected president; Dr. C. E. Wright, Clear Lake, vice-president; and Dr. T. E. Davidson, Mason City, re-elected secretary and treasurer. The outgoing president, Dr. B. F. Weston, was elected to the Board of Censors.

After the election of officers, the following program was put on by officers of the State Medical Society: John H. Peck, M.D., of Des Moines, President of the Society, outlined the program for our next annual meeting, May 14, 15 and 16. Mr. Vernon D. Blank, Managing Director of the Society, gave us an excellent review of the recent County Secretaries' Meeting at Des Moines and outlined the County Contract. We are very grateful for having these contact men putting us in closer touch with the State Medical Society, and I believe that every county society should have these men often to keep in close contact with the State Society. Walter L. Bierring, M.D., of Des Moines, visited the Society and gave a short extemporaneous talk which was greatly appreciated.

T. E. Davidson, M.D., Sec'y.

Crawford County Annual Meeting

The annual meeting of the Crawford County Medical Society was held, Wednesday, December 18, following a dinner at the hotel in Denison. Mr. Vernon D. Blank, Managing Director of the State Society, had been invited to attend and after reporting on the activities of the Society, he explained the advantages of the County Contract. A prolonged discussion followed and plans were made to incorporate and negotiate for a contract with the county supervisors of Crawford County.

Delaware County Annual Meeting

Tuesday, December 10, the members of the Delaware County Medical Society met in Manchester for the annual election of officers. The results were: Dr. E. J. Goen, Greeley, president; Dr. J. I. Jones, Manchester, vice-president; and Dr. D. M. Fuiks, Manchester, secretary-treasurer.

Des Moines County Annual Meeting

The members of the Des Moines County Medical Society met Tuesday, December 10, in Burlington at the Mercy Hospital for their annual election of officers. The following were elected: Dr. A. B. George, re-elected president; Dr. Carl Lohman, vice-president; Dr. George Dixon, re-elected secretary; Dr. J. P. Mathias, Mediapolis, censor; Dr. A. A. Eggleston, delegate; and Dr. Lohman, alternate. The program for the evening consisted of two motion picture films, Surgery of Peptic Ulcer and the Canti Cancer Film.

Fayette County

The Fayette County Medical Society met Monday, December 16, at the Mealy Hotel in Oelwein. After a six-thirty dinner, the Canti Cancer Film was shown.

Greene County Annual Meeting

At the annual meeting of the Greene County Medical Society, Dr. D. C. Steelsmith of Des Moines, spoke upon the importance of a careful check on possible sources of epidemics. The results of the election during the business meeting are: Dr. George W. Franklin, Jefferson, president; Dr. F. P. Cartwright, Grand Junction, vice-president; Dr. John R. Black, Jefferson, re-elected secretary-treasurer; Dr. Ben C. Hamilton, Jr., Jefferson, delegate; and Dr. George W. Franklin, Jefferson, alternate.

Iowa County Annual Meeting

At a meeting of the Iowa County Medical Society held in Marengo, Tuesday, November 26, Phillip C. Jeans, M.D., of Iowa City, presented an address on Certain Recent Developments in Nutrition. The officers elected for the ensuing year are: Dr. Thomas D. Clark, Victor, president; Dr. F. W. Bush, Van

Horne, vice-president; Dr. Irwin J. Sinn, Williamsburg, secretary-treasurer; Dr. J. L. Augustine, Ladora, delegate; Dr. C. H. Hermann, Amana, alternate. The new Board of Censors is composed of Dr. F. C. Schadt of Williamsburg, Dr. F. W. Bush of Van Horne, and Dr. E. L. Hollis of Marengo.

Jackson County Annual Meeting

The Jackson County Medical Society met Wednesday, December 18, in Maquoketa for their annual business meeting, which took place at four o'clock, at which time permission was given for the organization of an auxiliary. Officers for the coming year include: Dr. E. L. Lampe, Bellevue, president; Dr. C. H. Armstrong, Preston, vice-president; and Dr. William Lowder, Maquoketa, secretary-treasurer. After a fried chicken dinner at six o'clock, the following scientific program was presented: Eye, Ear, Nose, and Throat Conditions of Interest to the General Practitioner, Gorden F. Harkness, M.D., Davenport; Tumors of the Kidney, Nathaniel G. Alcock, M.D., Iowa City; Intestinal Obstruction with Pseudo Ileus, James R. Guthrie, M.D., Dubuque; and Public Health, D. C. Steelsmith, M.D., Des Moines.

Keokuk-Mahaska Joint Meeting

The members of the Keokuk County Medical Society were hosts to members of the Mahaska Medical Society at a joint meeting held Thursday, December 12, at the hotel in Sigourney. The evening program was presented after a six-thirty banquet, and included an address by John F. Herrick, M.D., of Ottumwa, on Cancer and a paper by Norman F. Miller, M.D., of Iowa City, on Dysmenorrhea.

Lee County Annual Meeting

Thursday, December 19, the Lee County Medical Society met in Fort Madison and the following scientific program was presented: Some Common Problems in Proctology with Discussions of their Diagnosis and Treatment, Clement L. Marion, M.D., Chicago; Rheumatic Heart, James Carr, M.D., Chicago; and X-Ray Measurements in Obstetrics, Harold Swanberg, M.D., Quincy. Three reels of moving pictures were shown by the courtesy of the Petrolagar Laboratories: 1. Movements of the Alimentary Tract in Experimental Animals. 2. The Influence of Drugs on Gastro-Intestinal Motility. 3. The Anatomy of the Abdominal Wall. The election of officers resulted in Dr. Frank Richmond of Fort Madison being named president; Dr. Jesse Saar of Donnellson, vice-president; Dr. William Rankin, Keokuk, secretary and treasurer; and Dr. B. J. Dierker of Fort Madison, delegate.

Marion County Annual Meeting

Members of the Marion County Medical Society met in Knoxville, Tuesday, December 10, and elected Dr. H. C. Payne of Pella, president for the ensuing year. Other officers are Dr. H. E. White, Knoxville,

vice-president; Dr. Corwin S. Cornell, Knoxville, secretary and treasurer; Dr. E. C. McClure, delegate and Dr. H. L. Bridgman, alternate. Dr. McClure reported on the House of Delegates; Dr. F. M. Roberts gave a detailed report of the November 7 Conference of County Officers; Mr. Vernon D. Blank, Managing Director, reviewed State Society Activities; and Dr. D. C. Steelsmith, spoke briefly on Community Health.

Mills County

F. W. Faulk, M.D., of Omaha, addressed the Mills County Medical Society, Friday, December 13, on the subject of Cancer. At the same time, the Canti Cancer Film was also shown, Dr. Faulk explaining the pictures as they appeared on the screen.

Mitchell County

The members of the Mitchell County Medical Society met with Dr. R. A. Culbertson of St. Ansgar, Iowa, and were very nicely entertained at the Blue Lantern Tavern. Guests present were: Dr. and Mrs. F. H. Fillenwarth of Charles City, and Drs. Dockstader, Steuerwald and Rogers of St. Ansgar. After an excellent dinner, Dr. Fillenwarth gave a very interesting and picturesque description of his recent and quite successful lion and deer hunt in the Kaibab National Forest of Arizona. The doctor, in order to forestall any doubts as to the authenticity of his statements, brought along snapshots of himself and his "kill", a mountain lion, a mule deer and a lynx. Following Dr. Fillenwarth's talk, Dr. Krepelka of Stacyville, gave a short interesting resume of the economic relations of the county medical men and their clientele.

T. S. Walker, Secretary.

Monroe County Annual Meeting

At the annual meeting of the Monroe County Medical Society, which was held in Albia, Wednesday, December 11, Dr. Samuel T. Gray of Albia, was re-elected as president, and Dr. T. A. Moran of Melrose, was re-elected secretary and treasurer.

Muscatine County Annual Meeting

Following a six-thirty banquet served at the Muscatine Hotel, the annual business meeting of the Muscatine County Medical Society was held, and Dr. L. A. Royal was elected president. Other officers include: Dr. G. A. Sywassink, vice-president; Dr. E. L. E. Emerson, secretary; Dr. L. C. Howe, delegate; and Dr. A. J. Cone, alternate. Three members were elected to the Board of Censors. They are: Dr. T. I. Wigim, Dr. A. B. Clapp and Dr. A. R. Lieth. Dr. Anthony Donohoe, Councilor for the Second District, was present and spoke briefly concerning the State Society and its relationship to the county organizations. Mr. Vernon D. Blank, Managing Director of the State Society reviewed the activities of that body during 1929, and upon request described in de-

tail the County Contract. As a result of subsequent discussion, it was decided to hold a later meeting of the society for further consideration of the County Contract.

Page County Annual Meeting

Thursday, December 5, members of the Page County Medical Society met in Clarinda for the annual election of officers. As a result of this meeting, the 1929 officers were named to again serve the society in 1930. They are: Dr. F. K. Burnett, Clarinda, president; Dr. C. C. Parriott, Clarinda, vice-president; Dr. J. F. Aldrich, Shenandoah, secretary and treasurer. The delegate to the state meeting in Marshalltown is Dr. B. S. Barnes, with Dr. R. J. Matthews acting as alternate, and the Board of Censors is composed of Dr. J. O. Weaver, Shenandoah; Dr. F. H. Clark, and Dr. R. J. Matthews of Clarinda.

Polk County Annual Meeting

Following a six-thirty dinner at Younkers' Tea Room, William J. Burns, Executive Secretary of the Toledo Academy of Medicine, addressed members of the Polk County Medical Society at their annual meeting, held Wednesday, December 18. Officers elected for the ensuing year include: Dr. Francis R. Holbrook, president; Dr. Russell C. Doolittle, vice-president; and Dr. L. K. Meredith, secretary and treasurer. Annual dues were raised to twenty dollars, and it was voted that a committee should be appointed to investigate the matter of employing an executive secretary.

Poweshiek County Annual Meeting

The Poweshiek County Medical Society met at the home of Dr. E. E. Harris, Monday evening, December 9. After a six-thirty dinner, a scientific paper was presented by E. B. Williams, M.D., of Montezuma, on Spinal Anesthesia. The election of officers resulted in Dr. C. D. Busby of Brooklyn, being named president for 1930. Other officers are Dr. P. E. Somers, Grinnell, vice-president; Dr. E. E. Harris, Grinnell, secretary; and Dr. J. T. Padgham, Grinnell, treasurer. Drs. E. F. Talbott, Harris and Somers were elected to the Board of Censors, and Drs. E. S. Evans and E. J. Ringena are delegate and alternate respectively.

Sac County Annual Meeting

Thursday, December 12, the Sac County Medical Society met in Odebolt at the Hutchison Hotel. W. J. Findley, M.D., of Sac City, furnished the scientific program by reading a paper on Influenza and Its Complications. Officers elected for this year are Dr. James McAllister, Odebolt, president; Dr. G. H. Swearingen, Sac City, secretary; Dr. J. H. Stalford, Sac City, treasurer; Dr. J. R. Dewey, Schaller, delegate; and Dr. H. S. Fobes, Auburn, alternate.

Scott County Annual Meeting

The Scott County Medical Society met November 5, for election of officers and a business meeting. Results of the election are as follows: Dr. W. A. Stoeks, president; Dr. W. Matthey, vice-president; Dr. H. A. Meyers, secretary; Dr. L. A. Block, treasurer; Dr. W. G. Bessmer, censor for three years; Dr. John I. Marker, delegate; and Dr. W. C. Goenne, alternate.

Sioux County Annual Meeting

The Sioux County Medical Society met at the office of Dr. G. Maris at the Hull Hospital Monday, December 30. The Canti Cancer Film was shown to a number of local county physicians and visiting physicians from Doon, Rock Rapids, and Sheldon. A delightful lunch was served as the courtesy of Dr. Maris. The following officers for 1929 were re-elected for 1930: Dr. R. W. Cooper, Alton, president; Dr. William Doornick, Orange City, vice-president, and Dr. F. C. Bendixen, Ireton, secretary and treasurer.

Tama County Annual Meeting

The regular annual meeting of the Tama County Medical Society was held in Traer, Thursday, December 19. Preceding the meeting a chicken dinner was served to members present. The scientific program consisted of Indications and Contra-indications for Forceps, A. J. Farnham, M.D., of Traer, and Procedure in Breech Cases, F. W. Gessner, M.D., of Dysart. The following officers were elected to serve during 1930: Dr. H. J. Von Lackum of Dysart, president; Dr. Knight E. Fee of Toledo, vice-president; Dr. C. S. Stoakes of Dysart, secretary and treasurer.

Van Buren County Annual Meeting

D. C. Steelsmith, M.D., of Des Moines, was the speaker of the evening at the annual meeting of the Van Buren County Medical Society, held in Keosauqua, Thursday, December 5. He discussed the County Health Unit Plan. Officers elected for this year include: Dr. J. W. Webb, Bonaparte, president; Dr. Roscoe Pollock, Douds, vice-president; Dr. C. N. Stephenson, Milton, delegate to the state medical meeting.

Washington County Annual Meeting

Tuesday, December 5, the members of the Washington County Medical Society met in regular session at the Nurses Home and listened to Norman F. Miller, M.D., of Iowa City, in a discussion of Retrodisplacements of the Uterus Including Causative Factors, Symptomatology and Methods of Treatment. Dr. Miller illustrated his lecture with lantern slides. Following are the results of the election of officers: Dr. E. T. Wickman, president; Dr. Enos Miller, of Wellman, vice-president; and Dr. W. S. Kyle, secretary-treasurer.

Webster County Annual Meeting

On Tuesday evening, December 17th, the Webster County Medical Society met in the classroom of St. Joseph's Mercy Hospital. Dr. Shrader gave a short case report, discussing a patient with the combination of diabetes mellitus and hyperthyroidism. Following this there was a business meeting. Dr. A. D. Neubert was elected to membership in the society. This was followed by election of officers. New officers are: Dr. A. A. Schultz, re-elected president; Dr. T. J. Dorsey, vice-president; Dr. John C. Shrader, re-elected secretary and treasurer; Dr. R. W. Stahr, delegate to the State Convention; Dr. J. F. Studebaker, alternate delegate. Dr. J. M. Garrett was re-elected to the Board of Censors to serve for a period of three years.

John C. Shrader, Secretary.

Winneshiek County Annual Meeting

The Winneshiek County Medical Society met Thursday, December 19, in Decorah, for an evening program at which time the Canti Cancer Film was shown. After the program the annual election was held and the old officers again asked to serve for 1930. The officers are: Dr. J. A. Juen of Ossian, president; Dr. E. L. Kaufman of Ft. Atkinson, vice-president; and Dr. A. F. Fritchen of Decorah, secretary and treasurer.

Woodbury County Annual Meeting

The December meeting of the Woodbury County Medical Society was held Wednesday, December 18, at the Elks Club. Following a six-thirty dinner several reports were given of the County Officers' Conference which was held in Des Moines, November 7. Officers elected for 1930 are: Dr. Roy F. Bellaire, president; Dr. S. D. Carney, vice-president; Dr. Roscoe Jepson, secretary and treasurer; Drs. Perkins, Melgaard and Nervig, censors; Drs. Wm. Jepson and T. R. Gittins, delegates, and Drs. Carney and W. W. Dean, alternates.

Wright County Annual Meeting

A moose banquet featured the regular meeting of the Wright County Medical Society which was held in Clarion, Friday, December 13. After the dinner, W. A. Rohlf, M.D., Waverly, gave an illustrated address on Mistakes in Diagnosis; D. C. Steelsmith, M.D., of Des Moines, spoke on Public Health, and Mr. Vernon D. Blank of Des Moines, reviewed State Society Activities. During the business meeting, Dr. J. H. Sams was elected president, and Dr. E. D. Tompkins, secretary and treasurer of the society. Mr. Blank was invited to remain for the business meeting and discussed the county contract. As a result the society decided to investigate the matter thoroughly and take further action upon it.

Waterloo Medical Society

Julius A. Rossen, M.D., and Arthur M. Alden, M.D., both of the Washington University Medical

College, St. Louis, were guest speakers at the regular meeting of the Waterloo Medical Society, held Tuesday, December 10. Dr. Rossen spoke upon Cranial Injuries, and Dr. Alden discussed Ear Diseases of Childhood.

PERSONAL MENTION

Dr. and Mrs. G. W. Gilfillan have returned to Pulaski from Boston, Massachusetts, where Dr. Gilfillan has just completed an eight weeks' post-graduate course in surgery and medical research at the Massachusetts General Hospital.

Dr. E. C. Rogers of Wapello is in the Burlington Hospital with numerous bruises and scratches as the result of a head-on collision between his car and a loaded gravel truck. His condition is not considered serious.

Dr. H. B. Young celebrated his fiftieth anniversary of practice in Burlington on December 26, 1929, by entertaining all the Burlington doctors in his home. Dr. Young is a past president of the Iowa State and Des Moines County Medical Societies.

Dr. W. A. Rohlf of Waverly, held his annual birthday clinic Saturday, January 5, and was assisted by Dr. J. F. Auner of Des Moines, who held a skin clinic in the afternoon. The surgical clinic was conducted in the morning by specialists from Chicago and the Mayo Clinic, and the medical clinic was under the supervision of specialists from the University of Iowa College of Medicine.

Dr. Henry G. Decker has returned to Des Moines from New York City, where he has completed a post-graduate course in surgery at the New York Post-Graduate Medical College and Hospital. Dr. Decker is associated in practice with Dr. Howard D. Gray.

Dr. and Mrs. Walter L. Biering of Des Moines, were slightly injured Sunday, December 15, when the car in which they were riding skidded into a ditch near Ankeny. Dr. Biering stated that strained backs and a few bruises were the only injuries received.

Dr. B. H. Sherman, formerly of Dexter, has announced that he has taken Dr. A. J. M. Findlater into partnership in the practice of medicine in Dexter. Dr. Findlater is a graduate of the School of Medicine of the Royal College of Physicians and Surgeons of Edinburgh, Scotland, and has specialized in obstetrics.

Dr. Charles C. Walker of Des Moines, eye, ear, nose and throat specialist, has returned to his home, after a three months' European trip, during which time he spent ten weeks at a special clinic in Vienna.

Dr. H. C. Parsons, eye, ear, nose and throat specialist, formerly of Watertown, South Dakota, comes to Iowa City, where he will be associated with Dr.

W. L. Bywater. Dr. Parsons is a graduate of the State University College of Medicine and practiced for three years in Anamosa, moving in 1908 to Watertown.

Dr. R. J. Galvin has opened an office in Oelwein, for the practice of medicine and surgery. Dr. Galvin completed his medical course at the St. Louis University, and became an interne in the St. Louis City Hospital. For a year he served the St. Louis University Hospital as assistant surgeon.

Dr. Thomas C. Knox, formerly of Marcus, has located in Sioux City, establishing his offices in the E. and W. Building.

OBITUARIES

Chase, C. S., Iowa City, died November 27, at the age of seventy-six, of cerebral hemorrhage, graduated in 1882 from Rush Medical College, Chicago. At the time of his death he was a member of the Johnson County Medical Society.

Clark, S. W., Oskaloosa, died at the age of sixty-nine as the result of an attack of pneumonia; graduated in 1886 from the State University of Iowa College of Medicine. At the time of his death he was a member of the Mahaska County Medical Society.

Conrad, A. E., Decorah, died December 2, at the age of sixty as the result of a prolonged attack of influenza; graduated in 1895 from The General Medical College, Chicago. At the time of his death he was a member of the Winneshiek County Medical Society.

Kirkpatrick, William J., Farmington, died December 5, at the age of sixty-seven of apoplexy; graduated in 1888 from College of Physicians and Surgeons, Keokuk. At the time of his death he was a member of Van Buren County Medical Society.

EUROPEAN INSTRUCTION IN OTOLARYNGOLOGY

The ninth intensive European course in otolaryngology will be given in Vienna in the summer of 1930. This course covers the anatomy, physiology, pathology, diagnosis, and surgery presented by the best teachers in Vienna. It lasts for five weeks, averaging ten hours a day. All courses are given in the English language.

Paralleling in scope this course in otolaryngology, a second course will be offered in ophthalmology in Vienna, covering three hundred hours of work.

For full particulars relative to these courses, address George W. Mackenzie, 1724 Spruce Street, Philadelphia, Pa.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

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THE HISTORY OF THE PRACTICE OF HOMEOPATHIC MEDICINE IN IOWA.

D. S. Fairchild, M.D., F.A.C.S., Clinton, Iowa.

The history of medicine in Iowa would not be complete without as full a reference to homeopathy as possible.

Homeopathy being based on a theory of rather limited scientific relationship, has occupied a rather subordinate position in the medical world. For a system of medicine that has been before the public for so many years, the material at hand is somewhat limited, its real contributions ended with Hahnemann.

In the earlier years of Iowa's development, the more robust practice of the so-called regular school was better fitted to meet the requirements of the day. There were, however, a few exceptions. A few men of the homeopathic school ventured into the rougher fields of practice, but they chose as a rule the more refined centers of population.

In procuring the data for this paper I am indebted to Dr. George Royal of Des Moines, a distinguished practitioner of homeopathic medicine, through whose courtesy we have been able to consult "History of Homeopathy," edited by William Haroey King, M.D., L.L.D., of New York, 1905.

Homeopathic medicine has had an interesting history. Its development was the outgrowth of certain theories held by Samuel Christian Frederick Hahnemann, a German physician. It is to be borne in mind, that at that time all forms of medical practice was based on theory or empiricism, hence it is not strange that conflicting theories should arise, but the interesting fact is that in the secession of Hahnemann from the dogmas then prevalent, it was not only the theory, but also the entire practice that became widely separated one from the other. Poleneics in medicine became almost as active as poleneics in religion and

the disputes could not be settled until scientific discoveries began to form the basis for scientific medicine.

There is no proper analogy between the homeopathic theories of the medicine of Hahnemann's time, the school from which he seceded, and the strange and foolish doctrines of Osteopathy or Chiropractic of today, in relation to the fact of scientific knowledge of the fundamentals of medicine. It was then a conflict of theories without a commercial basis; today Christian Science, Osteopathy and Chiropractic, and various cults, are largely commercial enterprises without any definite relation to medicine.

Hahnemann, the founder of homeopathy, was born April 10, 1755, at Neisson, Saxony. He enjoyed the advantages of a thorough classical education. In 1775, at the age of 20 years, he received from his father about 100 marks and permission to enter the University of Leipsic. He attended lectures there during the day and maintained himself by translating English into German, and by teaching German and French to Greek students. Hahnemann succeeded in gaining the friendship of Dr. von Quarin, physician to Maria Theresa and Emperor Joseph, who secured for him the position of librarian to Baron von Bruckenthal, governor of Siebenburgen, who lived in the city of Hermanstadt. After nearly two years with this opportunity for study, he entered the University of Erlangen in 1779, and received his diploma in 1780. When he left Hermanstadt he was master of Greek, Latin, English, Hebrew, Italian, French, Syric, Arabic, Spanish and German languages.

After receiving his diploma he returned to Saxony and located in a small mining town named Hetstadt. In 1781 he went to Dessau, where he married in 1782 and moved to Gommern, where he lived nearly three years and published his first book on the "Treatment of Old Sores and Ulcers," in which he admits his lack of success by

saying, that the patients probably would have done quite as well without him. He now became disgusted with the practice of medicine, resigned his position, and removed to Dresden and devoted himself to translations and the study of chemistry; he also studied medical jurisprudence under Dr. Wagner, the town physician and health officer. Here he worked four years. In 1789 Hahnemann removed to Leipsic and while engaged in translation from the English the "*Materia Medica*" of William Cullen, he began the experiments on himself with drugs which formed the foundation of his theories of medicine. He was engaged in this work for six years.

Dr. Hahnemann had now a considerable family and was very poor, living in one room. His poverty became so great that he was obliged to move to the little town of Stotteritz where he could live more cheaply and where he could turn his hand to any kind of work for a bare living. He wore the garments and the heavy clogs of a poor German peasant. Sickness came; he lost faith in medicine. At this time he writes, "Where shall I look for aid, sure aid? The darkness of the night and the dreariness of desert all around me; no prospect of relief for my oppressive paternal heart." This was written surrounded by his moaning children, almost without food and no faith in medicine.

The opportunity came of managing a case of acute mania in an influential man, and, being in charge, substituted kindness and gentleness in contrast to the harsh measures in use at that time in the treatment of the insane. The patient recovered. (This was in 1792 when Pinel revolutionized the treatment of the insane.) The patient was treated in his old hunting castle at Georgenthal at the foot of the Thuringian mountains. Hahnemann had up to this time experimented on himself only, and this was his first opportunity to test the value of his *materia medica*.

In May 1797 Hahnemann left Georgenthal, going to a small town Malschleben near Gotha—then to Pymout and from there in 1798 to Wolfenbuttel, then to Konigslutter. At this place in 1798 he published his essay on "A New Principle for Ascertaining the Curative Power of Drugs" published in the "Journal for Practicing Physicians." During his residence in Konigslutter an epidemic of scarlet fever broke out which gave him an opportunity to test out belladonna, with what results we are not informed. His work was cut short by the "Jealous Apothecaries" of the town who prosecuted him for violating the law in prescribing secret nostrums. In the au-

tumn he started out for Hamburg, his effects packed in a wagon, which was overturned, himself severely injured, a daughter's leg was broken an infant son was so badly injured that he died soon after, and his property damaged by falling into a stream. He was delayed six weeks, changed his mind and went to Altoona. He did not go to Hamburg until 1800. About this time Fleischer, the Leipsic publisher, gave Hahnemann an English book containing medical prescriptions to translate, but he made so many criticisms that he received no further employment from this publisher.

In 1806 he translated Von Haller's "*Materia Medica*" from the Latin into German. In 1802 he went from Hamburg to Mollen in the Duchy of Lanenburg and a little later to Eilenburg in Saxony. He was not allowed to remain there, driven off by the health officer. He then went to Machern near Leipsic, where poverty overtook him. He often assisted his wife in washing the family clothing, and not being able to purchase soap, employed raw potatoes instead. The supply of bread was so small that the portions were weighed out in equal proportions. From Machern he went to Wittenburg and soon after to Dessen, where he lived two years. Then to Torgan and then to Leipsic in 1811, always subject to persecution.

His first "proofings," "*Fragmenta de Biribibus*," was published in Latin while he was living in Torgan in 1805. Five years later, 1810, the first edition of the "*Organon*" appeared. In this first appears the name Homeopathy. In his introduction Hahnemann reviews the various theories of medicine which was not far from the truth in those days; some of which are worth reproducing. Our own recollection covers a period when very few physicians of any school knew clearly what Hahnemann taught. Referring to conflicting theories held for 2500 years, Hahnemann says, "Simultaneously, but quite independent of all these theories, there sprung up a mode of treatment with mixtures of unknown medical substances against forms of disease arbitrarily set up and directed towards some material object completely at variance with nature and experience, hence, as may be supposed, with a bad result—such is old medicine—Allopathy as it is termed.

"Without disparaging the services which many physicians have rendered to science auxiliary to medicine, to natural philosophy in its various branches, etc., I shall occupy myself here with the practice part of medicine only, with the healing art itself, in order to show how it is that diseases

have hitherto been imperfectly treated. I speak merely of the medical art as heretofore practiced, which presuming on its antiquity, imagines itself to possess a scientific character." Referring to methods of treatment, blood letting, evacuates, stimulates, etc., he says, "The presumed character of the affection they regarded as the cause of the disease, and hence they directed their pretended casual treatment against spasm, inflammation, fever, general and partial disability, neucus, putridity, obstructions, etc., which they thought to remove by means of their antispasmodic, Antiphlogists, tonic, stimulant, antiseptic, dissolvent, resolvent, derivative, evacuant, antigonisic remedies, of which they only possess a superficial knowledge.

"But all semblance of appropriate treatment of disease was completely lost by a practice introduced in the earliest time, and *even made a rule*, I mean the *mixture in a prescription* of various medicinal substances, whose real action was, almost without exception, unknown, and without any one exception invariably differed so much among each other, one medicine (the sphere of whose medicinal effects was unknown) was placed foremost, as the principal remedy (basis) and was designed to subdue what the physician deemed the chief character of the disease; to this was added some other drugs (equally unknown as regards the sphere of its medicinal action) for the removal of some particular accessory symptom, or to strengthen the first (adjuvant); and besides these, yet another (likewise unknown as to the sphere of its medicinal powers) a pretended correction remedy (corrigens); these were *all mixed* together (boiled, infused) and along with them, some medicinal syrup, or distilled medicinal water, also with different properties, would be included in the formula, and it was supposed that each of the ingredients of this mixture would perform in the diseased body the part allotted to it by the prescriber's imagination, without suffering itself to be disturbed or led astray by the other things mixed up along with it; which, however, could not in reason be expected.

"By observation I decided that in opposition to the old allopathic method, the true, the proper, the best mode of treatment, is contained in the maxim; to effect a mild, rapid, certain, and permanent cure, chosen in every case of disease, a medicine which can itself produce an affliction similar to that sought to be cured.

"Hitherto no one has ever taught this homeopathic method of cure, no one has *practiced it*.

But if the truth is only to be found in this method, as I can prove it to be, we might expect, that even though it remained unperceived for thousands of years, distinct traces of it would be discovered in every age, and such is the fact."

Hahnemann had now developed his theory of medicine and felt called upon to establish a school of medicine on homeopathic principles and selected Leipsic as the place. Before beginning his teaching it was necessary for him to prepare and defend a thesis, which he did June 26, 1812, selecting as the title, "A Dissertation on the Helborism of the Ancients."

Hahnemann practiced and taught homeopathic medicine until 1821, when, at the invitation of one of the notables of the Grand Duke Frederick, he moved to Goethen, not far from Leipsic, where he lived until 1835, when he took up his residence in Paris. About 1830 his first wife died and in 1835, at the age of 80 years, he married a French woman of some fortune, and as above stated, moved to Paris, where he lived in comfort and some degree of luxury. Hahnemann died July 2, 1843, at the age of 88 years.

The history of homeopathy is the history of Hahnemann, who was in many respects a remarkable man. It is to be remembered that during Hahnemann's life the practice of medicine was based largely on theories more or less speculative. Whether the practice of medicine should be based on remedies that acted on the principle of *contraria contrariis* curanter or on the principle of *similia similibus* curanter was not possible of demonstration. Cures were effected by either method, nor was it possible to say that the percentage was greater under one theory than the other.

During Hahnemann's life the practice under the theory of homeopathy was greatly in the minority, and as it was in those days a theory based on speculation and mystery—as in medicine or religion—was subject to persecution by the majority. This fact was no doubt of advantage to homeopathy, for the controversy going on between these two schools became a subject of interest to the public and led to the taking of sides. In the United States the natural tendency of our people to accept new doctrines in medicine or religion, brought about a wide spread dissemination of the doctrine of *similia similibus* curanter which possessed some advantages in the delicate character of dosage versus the large nauseating doses of the old time doctor.

(To be continued)

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

STERILIZATION FOR HUMAN BETTERMENT—By E. S. Gosney, B.S., L.L.B., and Paul Popenoe, D. Sc.—The Macmillan Co., New York, 1929—Price \$2.00.

THE MEDICAL CLINICS OF NORTH AMERICA—Issued serially, one number every other month—Volume 13, No. 2 (Chicago Number, September, 1929) Per Clinic year—Paper \$12.00; Cloth, \$16.00 net—Philadelphia, W. B. Saunders.

AN INTRODUCTION TO THE STUDY OF HUMAN ANATOMY—By R. J. Terry, A.B., M.D.—The Macmillan Co., New York, 1929—Price \$3.50.

CLINICAL MEDICINE FOR NURSES—By Paul H. Ringer, A.B., M.D.—Third Revised Edition—F. A. Davis Co., Philadelphia, 1929—Price \$3.00.

THE NUTRITION OF HEALTHY AND SICK INFANTS AND CHILDREN—By C. Pirquet, E. Nobel and R. Wagner (Of The Childrens' Hospital of the University of Vienna); Translated by Benjamin M. Gasul, B.S., M.D. F. A. Davis Co., Philadelphia, 1929—Price \$3.50.

INTERNATIONAL CLINICS, A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles—Edited by Henry W. Cattell, A.M., M.D.—Vol. III, Series 39—J. B. Lippincott Co., 1929.

THE VOLUME OF THE BLOOD AND PLASMA IN HEALTH AND DISEASE (Mayo Clinic Monographs)—By Leonard G. Rowntree, M.D., and George E. Brown, M.D.—W. B. Saunders Co., Philadelphia, 1929. Price, \$3.00.

THE MEDICAL RECORD VISITING LIST OR PHYSICIANS' DIARY FOR 1930—William Wood and Co., New York—Price \$2.00.

STONE AND CALCULUS DISEASE OF THE URINARY ORGANS—By J. Swift Joly, M.D. (Dub.), F.R.C.S. (Eng.)—The C. V. Mosby Co., St. Louis, 1929. Price, \$10.00.

MODERN METHODS OF TREATMENT—By Logan Cleudening, M. D.—Third Edition—The C. V. Mosby Co., St. Louis, 1929. Price, \$10.00.

THE BLOOD PICTURE AND ITS CLINICAL SIGNIFICANCE (Including Tropical Diseases), A GUIDE-BOOK ON THE MICROSCOPY OF BLOOD—By Professor Dr. Victor Schilling, Translated and Edited by R. B. H. Grodwohl, M. D.—The C. V. Mosby Co., St. Louis, 1929. Price, \$10.00.

PRACTICAL MASSAGE AND CORRECTIVE EXERCISES WITH APPLIED ANATOMY—By Hartvig Nissen—Fifth Edition, F. A. Davis Co., Philadelphia, 1929. Price, \$2.50.

THE NEWER KNOWLEDGE OF NUTRITION—By E. V. McCollum, Ph.D., Sc.D., and Nina Simmonds, Sc.D.—The Macmillan Co., New York, 1929. Price, \$5.00.

THE PRACTICAL MEDICINE SERIES—GENERAL MEDICINE—Edited by George H. Weaver, M.D., The Year Book Publishers, Chicago, 1929. Price, \$5.00.

BACTERIOLOGY FOR NURSES (Handbook)—By Harry W. Carey, A.B., M.D.—The F. A. Davis Co., Philadelphia, 1930. Price, \$2.25.

BOOK REVIEWS

AN INTRODUCTION TO THE STUDY OF THE NERVOUS SYSTEM

By E. E. Hewer, D.Sc. (Lond), Lecturer in Histology and Assistant Lecturer in Psychology at the London (Royal Free Hospital), School of Medicine for Women, and G. M. Sandes, M.B., B.S. (Lond) M.R.C.S., L.R.C.P., Demonstrator in Anatomy at the above School, Surgical Registrar to the London Lock Hospital for Women and Children, etc. The C. V. Mosby Company, St. Louis, Mo.

In this book the authors attempt to correlate gross and minute nervous structure with each other and with function and at the same time to summarize for review and reference the commoner neurological concepts.

Part I deals briefly with such fundamental matters as the nerve cell, the neurone theory and the principles of nerve degeneration. It also presents an anatomical consideration of such functional units as the Ascending and Descending tracts in the cord, Cerebellar and Basal Ganglion connections and the Autonomic Nervous System.

Part II discusses the function of various units of the nervous system and correlates anatomy and function by means of such simplified pathological processes as the interruption of sensory, motor, special sense and reflex paths at various levels.

Such subjects as normal conditional reflexes, reciprocal innervation, muscle tone, maintenance of posture and postural reactions are presented in a manner best adapted for consumption by the undergraduate.

A final chapter on Certain Pathological Conditions discusses hemisection and complete section of the cord, aphasia and nystagmus for the purpose of illustrating definite physiological and anatomical points.

The book, as a whole, is a brief, clear, rather dogmatic presentation of anatomical facts and physiological principles. The numerous diagrams are attractive and understandable but schematic to a fault.

This is in no sense a reference work for neurologists and unfortunately its comparatively high price will limit its circulation among undergraduates, where its greatest field of usefulness lies.

R. C. D.

AMERICA'S SEX AND MARRIAGE PROBLEMS

By William J. Robinson, M.D., President of the Medical Board and Chief of the Department of Genito-Urinary Diseases and Dermatology, Bronx Hospital and Dispensary (1911, 1926,) Consulting Dermatologist Bronx Hospital, etc.—Eugenics Publishing Company—New York, 1928.

In this volume, Dr. Robinson has presented a large volume of data (largely in the form of case histories) to support his belief that the frequency of divorce in America is due almost solely to sexual maladjustment of the contracting parties. The case histories cited are too brief to allow the reader any chance for analysis for himself and for this reason the citation of "over 200 cases" adds but little to the scientific value of the volume. While the author in the first few sections of his book adheres closely to his avowed theme, in the subsequent chapters he discusses the abnormal sex instincts, birth control, medico-sexual topics, blackmail, sadism, rape, prostitution, homosexuality, and ends his volume by reviews of the newer popular books dealing with sex matters. His chapter on homosexuality is to my mind the outstanding achievement in the volume.

As a survey of sexology for the purpose of creating interest in the subject and arousing investigation and study the volume will fill an important need. Too much of speculation and personal opinion is incorporated to permit the use of the volume as a reference or text book for medical students.

DISEASES OF THE BLOOD

By Paul W. Clough, M.D., Associate in Clinical Medicine, Johns Hopkins University—Harper & Brothers Publishers, New York and London, 1929—Price, \$2.50.

Diseases of the blood have always attracted much attention from the standpoint of diagnosis, but until a few years ago, only those responding to iron therapy were hopefully treated even by the specialist. With the publication of their liver therapy in pernicious anemia by Minot and Murphy in 1927, a renewed, intensified and more optimistic study of blood diseases in general was undertaken. This volume has been prepared to reflect our present knowledge of blood diseases, since it is now appreciated that the general practitioner should successfully manage many cases of this sort which formerly were recognized only to be referred to a specialist or consultant.

The author discusses first the normal blood cells, their formation and function. Upon this basis, he then discusses and classifies the anemias, and leukemias, setting forth in brief the essential symptoms, the blood picture, the course, and treatment of each condition. A closing section is given to a discussion of hematological technique.

This monograph will prove a most useful reference volume and will merit a conspicuous position upon the desk of any physician encountering in his practice diseases of the blood.

MEDICAL LEADERS FROM HIPPOCRATES TO OSLER

By Samuel W. Lambert, M.D., and George M. Goodwin, M.D.—Illustrated—The Bobbs-Merrill Company—Indianapolis — 1929 — Price, \$5.00.

The historical interest in medicine, now so universal, is reflected in the relatively large number of new histories recently published. This is one of the best. Its authors have departed from the usual path of the historian as a chronicler of places, names and dates, and have employed these media purely as a vehicle for recording the progress of thought and practice in medicine from antiquity to the present time. They have considered much personal data as of purely incidental interest, and have rightly stressed those attributes which, because of their importance to medical art or science, have caused the man to be remembered. Much of detail found in large works has been deleted. The correlation of facts is developed in the masterly fashion made possible by years of closest study and presented in the characteristically forceful Lambert fashion.

The volume holds the reader's interest from start to finish, and the many small incidents introduced as illustrative of the man will serve to permanently fix the character in the reader's memory. The volume is well-printed and well-illustrated throughout.

DISORDERS OF THE SEXUAL FUNCTION IN THE MALE AND FEMALE

(A Practical Treatise)—By Max Huhner, M.D., Chief of Clinic, Genito-urinary Department, Mount Sinai Hospital Dispensary, New York City, etc.—Third Edition—Philadelphia, F. A. Davis Company, Publishers—1929.

During the past ten years much attention has been directed towards those disorders of sex function dependent upon abnormal or perverted psychic stimuli. Stimulated by the researches of the Freudian school, this study, long relegated to scientific oblivion, has been eagerly approached by the neurologist—especially those accepting the teachings of the Vienna School. However, in all of the recent literature developed upon this subject little of note can be discovered outside the field of the psychiatrist or psychologist. The volume here announced gives a most pleasant and entirely useful digression from this precedent in the fact that it is written by an urologist claiming but passing knowledge of neuro-psychiatry. He postulates that many, if not all, of these sexual abnormalities may have a demonstrable organic basis, and that in many instances the psychic or nervous manifestations are the result rather than the cause of the trouble. It is further of great interest to note that as a result of careful search, demonstrable pathology was determined in many of the common disorders of the sexual function which, when corrected, give striking "cures."

The volume is written in readily understandable language, and is evidently intended to assist the

general practitioner in solving problems of this nature encountered in practice. His discussion of masturbation or of continence alone is worth the price of the volume, but the reader will find such subjects as impotence, enuresis, or dysmenorrhea discussed with equal faithfulness. The volume is well worthy of a most careful reading by any physician regardless of the nature of his practice.

CLINICAL OBSTETRICS

By Paul T. Harper, Ph.B., M.D., Sc.D., F.A.C.S. Fellow of the American Association of Obstetricians, Gynecologists, and Abdominal Surgeons, and of the New York Obstetrical Society. Clinical Professor of Obstetrics, Albany Medical College. Regional Consultant in Obstetrics, New York State Department of Health. Illustrated with 84 plates of engravings (250 figures) with legends and charts. F. A. Davis Company, Publishers, Philadelphia, 1930. Price \$8.00, net.

This is the most concise and complete clinical text on Obstetrics that I have ever seen. It covers the whole field of both normal and pathological obstetrics in a brief, easily understood and interesting manner, enabling one to glean the grain without winnowing out the usual amount of chaff.

It is divided in twenty-two chapters that deal with the normal mechanism and conduct of labor together with separate chapters on all the possible complications in the way of mal-presentations and positions, toxemias, infections, and hemorrhages as well as all the obstetrical operations, their indications, technic and after care.

This is all made more pleasingly understandable by eight-four pages of multiple semi-schematic illustrations with detailed descriptions that get the ideas across in a most instructive manner.

It is one of the few text books that give the reader the incentive to read it through word for word without stopping.

F. W. R.

POSTURE AND HYGIENE OF THE FEET

By Philip Lewin, M.D., Associate Professor of Orthopaedic Surgery, Northwestern University Medical School; Attending Orthopaedic Surgeon, St. Luke's Hospital, Chicago, etc.—The National Health series, Edited by The National Health Council—Flexible Fabrikoid—Price 30 cents—Funk & Wagnalls Company, New York and London—1929.

This small volume of convenient pocket size is one of the National Health Series sponsored by the National Health Council. Each of these volumes is written in popular style, and is intended for lay reading.

The author has enumerated many of the commoner foot troubles and from his long experience,

has recommended corrective methods for their relief. Equal stress is given the prevention of foot troubles and suitable exercises recommended for preservation of both the longitudinal and transverse arches. Parents will find the book of value in noting developmental tendencies in children which, if uncorrected, may later develop serious foot trouble. The book is illustrated.

THE SURGICAL CLINICS OF NORTH AMERICA

(Issued serially, one number every other month.) Volume 9, number 5. (Philadelphia Number—October 1929) 299 pages with 111 illustrations. Per Clinic year (February 1929 to December 1929.) Paper \$12.00; Cloth, \$16.00. Philadelphia and London.

A very interesting number with many unusual cases.

Dr. Wayne Babcock gives a very interesting account of the operating procedure for decompression of aortic aneurysm by carotid-jugular anastomosis. Doctors John Berton Carnett and Eugene A. Case, present a very interesting clinical and pathological discussion of so-called subacromial bursitis. Dr. I. M. Boykin in giving a series of reports on spinal anaesthesia states that he introduces spinocain with the patient in a sitting posture, which is contrary to the teachings of Dr. Pitkin. Dr. Astley P. C. Ashhurst and Dr. Edward T. Crossan have an unusually fine article on unusual tumors of the soft parts. The many other presentations are excellent.

F. W. F.

HEMORRHOIDS, THE INJECTION TREATMENT AND PRURITUS ANI

By Lawrence Goldbacher, M. D. — Illustrated with 31 Half-tone and Line Engravings, Some in Colors—Philadelphia, F. A. Davis Company, Publishers — 1930 — Price, \$3.50, net.

During the past year, three books from as many authors and publishers have, to our knowledge, been offered to the profession upon the subject of the injection treatment of hemorrhoids. This of itself would stress the fact that this method of treatment is finding favor in many centers. When, however, we consider the fact that the injection treatment reported is attended by but slight pain and does not require loss of time from work, obviates hospitalization, does not require the employment of an anesthetic, and gives greater permanency in results than operative treatment, the value of the procedure will be further appreciated.

This volume by Dr. Goldbacher is one of the best to reach our attention in the fact that sufficient detail is furnished to supply any physician with the fundamentals of the treatment without burdensome details or theories. The numerous illustrations are particularly well chosen.

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RECENT STUDIES IN ANGINA PECTORIS

— — — — —
DON C. SUTTON, M.D.*
Chicago

Angina pectoris, the "meditatio mortis" of Seneca, although described only 160 years ago by Heberden, is by no means a disease of recent origin. Although no symptoms are mentioned by Hippocrates that would suggest his having observed such a condition, there are references in ancient literature which undoubtedly point to angina, the most famous being that of Seneca,¹ who compared the suddenness of the onset of an attack with the impetuosity of a tempest.

Dionis,² surgeon to Louis XIV, described two cases which were either angina or its closely allied syndrome, coronary occlusion. Hoffman, (1734) and Morgagni, (1689) described cases which were undoubtedly angina, the most famous being Morgagni's report of a well known Italian physician, Ferrianni, who died of this condition, on whom a postmortem was done by Morgagni. Rougnon³ in February, 1768, described the case of a cavalry officer and gave the nearest complete description of any preceding that of Heberden. Five months later Heberden in the Transactions of the London College of Physicians reported in detail the symptomatology of this disease, based upon his observation of twenty cases, which has been little changed since. Because of the completeness of this description he deserves credit for being the first *true* observer.

Huchard⁴ has divided the history of angina pectoris into three parts; first, the clinical period, in which the initial observations were made by Hoffman and Morgagni, the later observations of Rougnon and Heberden, closely followed by Hunter, Parry and Jenner; second, the period of pathogenesis, which he states has been a long

continued and tempestuous period, even to his day—which is also true today; and third, the period of treatment. Huchard in 1899 tabulated eighty theories as to the cause of angina. Of this number we have still remaining three more or less universally accepted theories: first, myocardial, as discussed by McKenzie; second, lesions of the aorta, according to Albutt and Wenckebach, and finally, one of the first theories proposed and still accepted, that of interference with coronary circulation. We shall discuss in some detail the latter theory, leaving, for reasons which will then be obvious, for more superficial discussion the other two.

Huchard credits Drelingcourt (1700), Thebesius and Bellini, (1703) with making the first observations of coronary sclerosis. Others from then on, especially Morgagni, make frequent references to the formation of calcareous masses or stones in the aorta, and allude frequently to such changes in the coronary vessels. Neither Rougnon nor Heberden associated sclerosis of the vessels with production of anginal pain. This relationship was suspected by Dr. John Hunter, but more definitely stated by his pupil, Edward Jenner, after finding extensive sclerosis in the heart of Dr. John Hunter, who suffered with angina pectoris and died of coronary occlusion. Jenner communicated his impression to Parry, and they were the first to really advance the theory that sclerosis of the coronary artery is the cause of angina pectoris. Kreysig⁵ suggested that the pain is produced because of lessened blood flow through the coronary arteries, because of their constriction from sclerosis. Blackhall, Germain See and Huchard, because of finding an occasional heart in which there was no gross pathological lesion in the coronary arteries, suggested the possibility of spasm of the coronary artery to account for lessened blood flow to the myocardium. Huchard in a discussion of the causes of angina and pseudo angina, makes the following statement:—"There is only one true

*From the Department of Medicine, Northwestern University.

angina, the 'angina coronariene'; all others are false."

If angina pectoris be due to disease of the coronary arteries, an understanding of the effects of these changes on the heart muscle is essential to the comprehension of the disease and its end results. The causes of arteriosclerosis of the coronary arteries is the same as the causes of generalized arteriosclerosis, discussion of which is not within the scope of this paper. In statistical studies made by various observers the left coronary is found to be more frequently involved than the right, and the ramus descendens anterior sinister branch of the left coronary is more frequently and more seriously involved. Arteriosclerosis may involve the entire arterial wall throughout its course, or may occur localized as plaques. In either event the effect is that of producing tortuosity, loss of elasticity and slowing of the blood stream through localized narrowing.

The fibrosis surrounding the arterial wall may extend out into the surrounding myocardial tissue, producing stellate like scars radiating from the artery as a center, or the closure of small branches may result in the formation of small infarcts, without symptoms, but leaving fibrotic scars in the myocardium. Occasionally large infarcted areas are found in individuals in whom no history has been obtained of clinical symptoms resulting from the infarcts. This group of changes is usually classified as chronic fibrous myocarditis. In the recognition of this lesion anatomically it must be remembered that there are occasionally similar changes which occur as a result of acute inflammatory lesions, but these are relatively more rare than the fibrosis of secondary changes from arteriosclerosis in the coronary arteries. MacKenzie's view that angina pectoris is due to myocardial sensation, and the views of Allbutt and Vaquez that it is due to dilatation of the aorta, would seem reasonable because of occasional absence of arterial changes in the hearts of those who have suffered from angina. Willius⁶ has aptly termed this group without definite arterial changes sclerosis occulta. There have not been sufficient anatomical studies to state definitely that sclerosis occulta means that there is an arteriosclerosis of the smaller arterioles.

Since 1848, when Erickson,⁷ at the suggestion of Marshall Hall, performed ligation experiments on the coronary artery, followed closely by Panum, there has been much study of the physiological effect of the temporary and permanent occlusion means that there is an arteriosclerosis of Singer⁸ has been the first to attempt experimental study of pain effects of involvement of the coro-

nary arteries and larger vessels. These observations were made on dogs, partially narcotized with morphin, using as an index to pain the effects upon respiration. As shown by more recent studies of Sutton and King⁹ and Sutton and Lueth,¹⁰ reflex respiratory changes from the heart and aorta cannot be used as an index to pain, since it is shown that in the conscious unanesthetized dog stretching of the aorta may produce marked reflex respiratory changes without any evidence of pain. In these experiments careful observations have been made on the effect of temporary occlusion of the coronary arteries in the unanesthetized animal, with the conclusion that temporary occlusion results in immediate pain. It has been shown that this pain is the result of decreased nutrition to the heart muscle and not the result of trauma to nerve fibres. It has been further observed that in stretching of the ascending aorta and aortic ring and of the ventricular cavity, with a dilator which may be introduced into conscious animals under local anesthesia, none of these measures produce pain. It is therefore concluded that the sole factor in pain production is the result of diminished flow to all or a part of the myocardium.

The conclusions from this experimental work are summarized as follows: the experiments indicate that angina pectoris (or cardiac pain) is the result of insufficient nutrition to the heart muscle. This being true, it is readily conceivable that the anatomically normal heart may, under conditions of extreme exertion, fail to receive sufficient blood (nutrition) through normal coronary arteries. In fact, this is suggested in the sensations of athletes just before getting their "second wind," i. e., substernal oppression, choking sensations, or actual precordial or substernal pain.

Untrained individuals may experience sensations of so severe a character as to prevent continuance of the effort until the "second wind" comes. If intelligent patients suffering from angina pectoris are carefully questioned, a surprising similarity is found between the sensations of an extreme effort in youth and those felt during an attack of angina pectoris of effort. This was first called to my attention by the unsolicited observation of a patient that the sensation felt as a young man after running up a mountain side, during an emergency, was exactly the same as that now felt during an attack of angina pectoris.

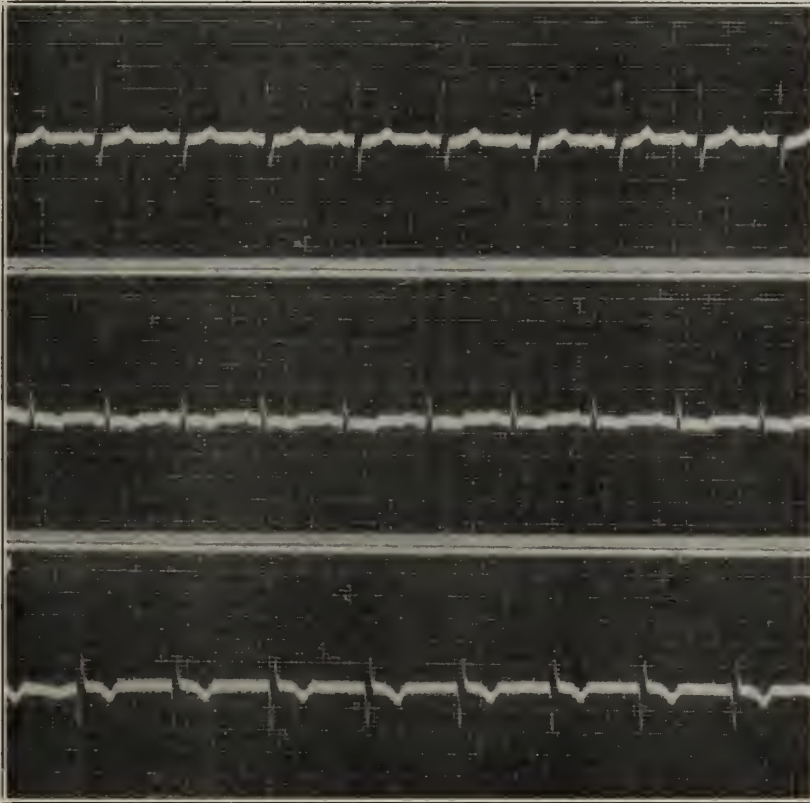
Wenckebach¹¹ draws similar conclusions in discussion of the "Toten punktes" "second wind" and angina pectoris. He further calls attention to the fact that both are relieved by the administration of nitrites. Anrep¹² has shown

that during powerful contraction of the heart, as produced by compression of the ascending aorta, coronary flow may cease entirely, during systolis.

However, in hearts in which the blood flow is decreased by sclerotic narrowing of the lumen of the coronary arteries, much less exertion may result in sufficient interference with the blood flow to cause pain. In some cases there are apparently no changes, or insufficient changes, in the coronary arteries of individuals who have suffered from angina pectoris during life to account for the pain as an obstructive phenomena. In these cases a

to perform. On this principle, drugs act beneficially in such cases by causing adequate dilatation to meet the demand of the cardiac muscle for proper nourishment. Under normal physiological conditions, the coronary arteries are able to respond adequately up to point of extreme exertion, or "second wind," when other extra compensatory factors enter in; but in the angina patient the coronary dilator mechanism fails to operate and dilator drugs become necessary.

On the other hand, a large percentage of individuals with most marked sclerotic changes have



No. 1. Typical angina effort, no improvement following administration of Euphyllin. Died suddenly two months later of a coronary thrombosis. Note marked changes in R. lead II and inversion T in leads II and III.

spasm of the coronary arteries has been presumed to exist; although sclerosis of the smaller vessels has not been excluded.

Without denying the possibility of the existence of such a condition as vascular spasm, its presence is not necessary to explain anginal pain. For example, in the cardiac sensations of "second wind" or on exertion in the cardiac patient, the sensations may be due to a failure of the coronary arteries to dilate and so supply the heart with an extra supply of nourishment to care for the extra work it is called upon

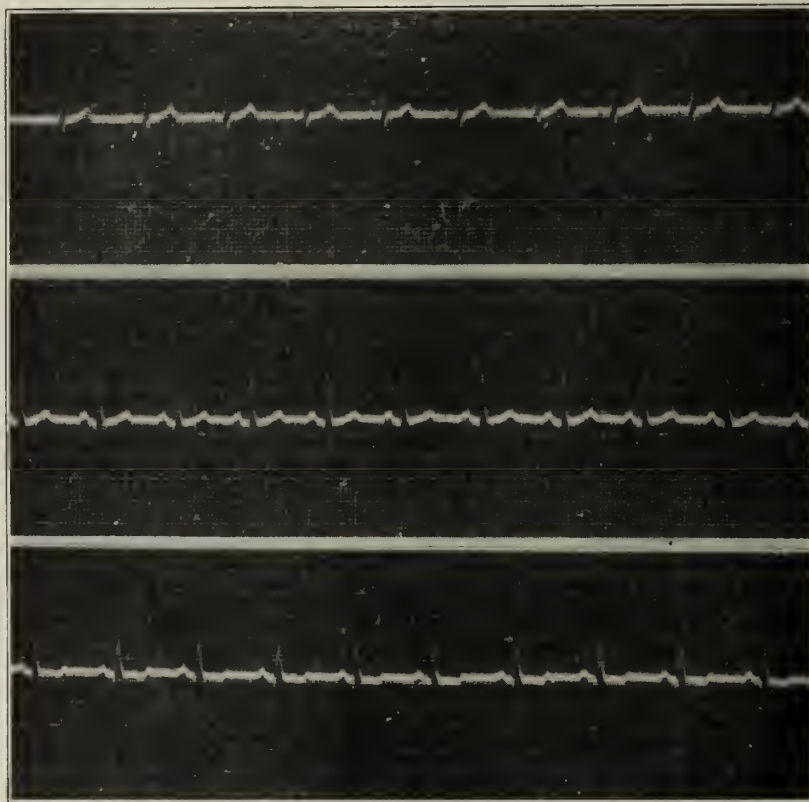
never suffered from angina pectoris. Variations in the increasing anastomosis of the coronary arteries which becomes more marked with advancing age, as shown by Gross,¹³ may well be the deciding factor. Such variations offer an explanation for the absence of pain in cases of advanced coronary sclerosis. This offers an explanation for the rarity of non-syphilitic angina pectoris in clinics attended largely by laborers. As a result of lifelong strenuous exercise, a much more free anastomosis of the coronary arteries and a more responsive dilator mechanism might be expected

than in those of more sedentary habits.

Experimentally, temporary occlusion of the coronary arteries has caused temporary pain, whereas permanent complete occlusion does not lead to permanent objective manifestations of pain in dogs; the sudden decrease in blood supply apparently causes the pain. The pain has persisted so long as compression has been continued in conscious animals, but is not evident after the animal with a permanent obstruction of the coronary artery has recovered from the anesthesia.

conditions observed anatomically in cases exhibiting pain of long duration ending in death.

The typical symptoms of angina pectoris are too well known to warrant present discussion, further than to call attention to certain unusual types of pain. The typical angina pectoris of Heberden is an attack of pain over the precordium referred to the left upper extremity, precipitated as a result of exercise. Aside from exertion, which is the most frequent cause, there are two other factors that may precipitate attacks,



No. 11. Patient under observation 1 yr. Typical angina of effort. Complete relief from the Theo calcin gr. VISS tid.

The duration of pain of permanent occlusion is less than the period required for recovery from ether anesthesia, and greater than even a ten minute temporary occlusion. If a limp in the left foreleg is accepted as evidence of pain, the persistence of pain after recovery from anesthesia has been observed.

This is at variance with the clinical presence of pain in cases of coronary thrombosis in which the pain may last from hours to days; unless a slowly forming retrograde thrombus with closure of additional small branches causing gradual increase in the ischemic area be the cause of prolonged pain. This is certainly in accordance with

namely, abdominal distension following a heavy meal or as a result of gas, and more rarely, nocturnal attacks. The attacks following abdominal distension are of particular interest in view of studies which are now in progress in the physiological laboratory at Northwestern University by Drs. Ivy and Burgess (personal communication), on the effect on the electrocardiogram of acute dilatation of the stomach in dogs. This effect has been surprisingly similar to the effect observed in temporary and total occlusion of a branch of the coronary artery. From these observations, apparently the coronary circulation is either interfered with mechanically from displacement of the

heart, or abdominal reflexes interfere with normal coronary flow and in this manner may account for frequency of anginal attacks under these conditions. The nocturnal attacks have been explained by Vaquez and others as being the result of exertion occurring during nightmare.

In the prognosis of angina pectoris there has been no definite manner by which the duration of life after onset could be predicted with certainty. It is a well known fact that many individuals have frequent severe attacks of angina over a period of years; on the other hand, there are many patients who die after one or two attacks. Rothschild¹⁴ and Willius⁶ and others have described the electrocardiographic findings in individuals with advanced coronary sclerosis. Rothschild explains the electrocardiographic changes, which were distortion of the R and inversion of the T, as being due to interference with conduction in the Purkinje system. Regardless of the actual mechanism of this interference it is a definite fact that marked distortion of the R in Leads 1 and 2 is always present in those hearts which show a marked fibrotic change as a result of sclerosis of the arteries. In other words, apparently this distortion of the R is an index of the amount of nutritional disturbance in the heart muscle. However, many patients giving a perfectly typical history of angina show normal electrocardiograms. As Willius¹⁵ has stated, patients showing to any marked degree these deviations from normal in electrocardiograms, usually die within a year. It has been found true when the electrocardiogram is analyzed from the viewpoint of prognosis of the angina pectoris, that the individual with normal electrocardiogram does not die suddenly during an anginal attack, whereas in all the instances in which we have observed marked distortion of the R, this has meant death, usually from a coronary thrombosis within a year.

While it is true that both these types of angina pectoris are relieved by effective doses of nitroglycerin, the type showing marked arterial change does not respond to the caffeine theobromine group of drugs which act as specific dilators on coronary vessels. In the group with normal electrocardiograms we have come to expect a practically complete relief from an anginal attack with even an increase of exertion over that previously possible, as a result of the continued use of theocalcin or euphyllin. It is our belief that angina pectoris can be divided into two distinct groups on the basis of the electrocardiograms; those with a normal electrocardiographic tracing and a satisfactory response to caffeine or theobromine may be expected to live indefinitely so

far as angina pectoris is concerned, whereas those with marked distortion of the R wave and inversion of the T, and no response or slight response to coronary vessel dilator drugs, may be given a poor prognosis within a year.

Treatment—nitrates in the form of sodium nitrite, nitroglycerin, and amylnitrite, have enjoyed a long established reputation for prompt relief of angina attacks, having first been introduced for that purpose by Sir Lander Brunton (1867). Huchard, as early as 1889, observed the beneficial effect of caffeine and theobromine in some cases of angina pectoris, although including them in a list of futile and harmful drugs. His discussion of the drugs used since Heberden's time is extremely interesting and illustrates the length to which empiricism may go when drugs are used without knowledge of the pathologic physiology of a disease. It is only comparatively recently that the observations of F. M. Smith,¹⁶ Anrep,¹² Gilbert and Fenn,¹⁷ and others, have shown the pharmaceutical action of the whole group of caffeine and theobromine compounds.

Treatment, then, may be divided into two distinct groups—those in which we expect a normal response and those in which we do not. In those attacks brought on by exertion it is advisable to curtail all activities well within the limits that bring on an attack—regardless of how little that exertion may be. There is no particular advantage gained by a period of rest in these individuals, and they should rather be allowed all the activity possible, commensurate with the absence of an attack. The individual should carry at all times either nitroglycerin in the form of hypodermic tablets which can readily be dissolved under the tongue, or amylnitrite pearls to be used in emergency immediately upon the onset of an attack. It appears to be customary among physicians to interdict the use of coffee. Because of the effect of caffeine upon the coronary circulation, I see no reason for stopping the use of coffee, in fact I frequently advise the drinking of one to two cups at breakfast and luncheon, not allowing it in the evening because of the effect on sleep. The regulation of food consists more in prescribing the quantity rather than the type of food; obviously the stomach should never be overdistended. It is preferable to take frequent small meals during the day rather than a large evening meal. Under this regime the individual with normal electrocardiogram may be expected to go for long periods of moderate exertion without an attack.

In the group with abnormal electrocardiograms our drugs are much less effective. Marked cur-

tailment of physical activity and in the amount of food ingested seems to have but little effect upon the ultimate prognosis, except that great curtailment of physical exercise prevents the onset of acute attacks. In numerous instances it has been observed that these individuals, even though kept quiet, are fully as likely to develop a coronary thrombosis as if they were allowed more activity.

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CONSTIPATION*

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Prior to Virchow there existed a great many doctrines and fantastic theories concerning abdominal disorders complicated by constipation. Attempts were made to explain chronic, pathologic conditions of the pelvic organs as the seat of all types of constipation. Virchow, vigorously opposed these principles.

He contended that the defective downward movement of the stool in the bowels is due, either to imperfect contraction of the muscle membranes or to mechanical obstacles. This was the first differentiation of functional and mechanical constipation. The former only, belongs to the field of Internal Medicine, the latter to that of Surgery. Since there is no definite borderline between them, and since functional constipation may lead to mechanical organic lesion of the bowels, this disease may be of interest not only to the Internist and the Surgeon but occasionally to the Gynecologist as well.

Today, I shall confine myself to functional constipation only. The gastro-intestinal tract together with its glands comprises a functional unit. Its function consists, first, of taking solid and liquid nourishment, second, of assimilating it into elements necessary for growth and formation of energy and heat, and third, excreting of waste products.

The real digestive work is accomplished in the small intestines and this part aids elimination, only in so far as the liver empties the product of its excretion, the bile, into them. However, the main organs of elimination are the large intestines and the kidneys which are also embryologically closely connected, and, have a separate outlet only in a late stage of development.

The kidneys start their work of excretion of water, salt and urea early in about the sixth week.

The liver empties bile into the bowels as early as the third month and soon afterwards the mucous membrane of the colon secretes, more and more, according to the growth of the fetus. Soon the bowel contents fill the colon, distend it, and are retained in it by the firm contractions of the sphincter ani. Since the secretion of the kidneys is mixed normally with the liquor amnii, of which a part is swallowed by the fetus, again and again, and the insoluble metabolic products excreted into the bowels are kept thoroughly sealed, we certainly may infer the harmlessness of the kidney secretion and the danger of the colon contents for the embryo. Therefore, we see in the closing of the rectum, a safety device, which protects the fetus from injury, serves its preservation and converts the colon into an organ of retention. At this fetal period when liver and colon are beginning to secrete, the intestinal tract is already provided with its muscular apparatus and ready to mix and move its steadily growing contents.

According to the peristaltic law the bowel contents are moved toward the point of lowest tonus. First the proximal part of the large intestines due to the filling from above will attain the highest tension of its wall.

As soon as this tension is strong enough the first peristaltic wave will occur and the movement of the meconium must be toward the anus since the Bauhinian valve will prevent regurgitation into the ileum. The tighter the sphincter ani remains the stronger the peristaltic pressure grows and therefore, the rectum will always attain the highest tonus and move the meconium backward into proximal parts of the colon. These periodical forward and backward movements of the contents and the gradual increasing fullness

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of the large intestines transforms them into the colon.

Every human being that is born alive has over-filled large intestines. The first thing a newborn child has to learn is the respiration. The second, the opening of the apparatus of retention which was securely closed for six months. The respiration causes rhythmic changes of the intra-abdominal pressure, and the crying of the infant acts as abdominal straining.

With the oral alimentation soon after emptying of the colon a second mechanism of retention in the colon is formed as a ring of contraction which divides the proximal colon from the other large intestines, similar to the division of the fundus and the pyloric part of the stomach.

In the first colon part the chyme is retained for considerable time, moved to and fro between Bauhinian valve and the ring of contraction, mixed, concentrated and so transformed into stool.

The proximal part of the colon is therefore the place of stool formation. It is also the place of after-digestion through bacterial influence. The soluble products of this after-digestion are absorbed immediately, therefore, concentration and the gaseous products are passing the ring of contraction. In its periodic relaxation this ring also allows the passing of the finished stool which is moved rapidly downward into the rectum where the stool is collected, ready for defecation.

The space between the proximal and the distal colon is usually empty, a reserve room for equalization of pressure and overfilled parts of the colon. This also explains the possibility of voluntary retention. A filling of the entire colon as at birth, will, under normal conditions never take place again.

A slight increase of pressure above the sphincter is noticed as a desire of defecation and the infant will yield to it immediately. With advancing intelligence and education that natural desire of defecation is suppressed and adapted to time and place. If the tonus of the mechanism of closing the rectum is voluntarily increased until it becomes superior to the peristaltic pressure of the stool the latter is moved backward to a place of less pressure.

In the exact sense of the word constipation is an overfilling of parts of the colon or the entire colon with stool or gas.

The overfilling of the large intestines is always caused by abnormally long retention which in turn causes a thickening and hypervolume of the bowel contents. This makes difficult, both the

peristaltic downward movement and the defecation.

Briefly, I will speak of congenital and symptomatic constipation. To the former belong the congenital megacolon and Hirschsprung's disease.

Normally, the entire colon of the newborn shows equal width and equal filling because strength and tonus of the muscular wall are everywhere approximately the same. If there were differences in strength and in ability of muscular contractions in the fetal colon, then the weaker parts would be wider than the stronger ones.

Such conditions occur occasionally in newborn, as the "congenital megacolon." If the muscular wall of these sacklike dilatations is hypertrophic, then they correspond to "Hirschsprung's disease."

The strength of the sphincter ani and weakness of the colonic wall alone, can hardly explain the formation of this condition. There also must exist an overproduction of meconium which is perhaps an anomaly of the fetal metabolism or intrauterine overnutrition. Hirschsprung believed the constipation of his little patients due to the hypertrophy and dilatation of the colon but certainly his conception as to cause and effect was incorrect. If the sphincter is opened after birth in a normal way then the hypertrophied ring muscles of the colon should counteract the secondary dilatation even more completely than colon muscles of normal strength.

The secondary or symptomatic constipation may begin under various conditions resulting from a change in the usual routine of living. Either through psychic effects, for instance the horror of using a bed pan, or through change in amount of bowel contents due to a diminished amount of food consumed or to increased usage of nutritive material. For examples, I might mention, trips, voyages, dieting in young girls, gastric and duodenal ulcers in which the peptic and also the tryptic digestion is more intense.

The most important and most common varieties of this disease are the atonic and spastic types.

Hypertonia or spasm is an increased activity of the muscle layers caused by stronger impulses of the nervi vagus and pelvici. Every ring or tube-shaped contraction that diminishes or abolishes the lumen of the bowels is called spasm. Atonia in contrast to this does not need to be a lessened activity because the reduction of muscle tonus must not necessarily be a paresis of the vagus, but might be a tonus of the sympathetic nerve, an activity also. If the voluntary muscles are at rest, then they are subject to mechanical

laws and expansibility. Atonia is therefore, a combination of sympathicotonic and elastic relaxation. If there is danger of overdistention the muscularis will react with violent contraction which proceeds as peristalsis toward a point of lower pressure—usually toward the anus. In case of voluntary or involuntary tonus increase of the sphincter, the peristalsis will be reversed, the bowel contents forced backward into the higher colonparts of lesser tonus.

This up and downward movement of stool will continue until the entire colon is filled evenly and the stretching of its wall reaches a point where overdistention is imminent. Since the volume of the colon contents is increasing steadily through continual addition of more material and gas formation, only relief by normal defecation will prevent overdistention of parts of the colon.

Trendelenburg showed that overdistended ring muscles regain their normal tonus very slowly. Therefore, peristalsis in a recently emptied colon will occur only with difficulty and tardiness in case of early refilling. After a prolonged period of rest the peristaltic irritability recovers completely in every case. Overstretched colon areas will therefore remain points of lessened resistance; they are predisposed again and again to overdistention and in this way habitual atonic constipation gradually develops.

The primary cause of this disease is most frequently, voluntary suppression of the desire of defecation, but, in some cases a reflective spasm of the sphincter muscle due to painful lesions of the anus. Removal of the lesion might have cured the spasm long ago but the atonic constipation remains.

If we compare the average volume of stool of 200 cc which an adult produces in twenty-four hours, to the capacity of the colon, the important part gas retention must play in developing atonic constipation, soon becomes apparent.

Swallowed air and carbon dioxid taken in beverages leave the stomach chiefly by belching. Whatever might pass the pylorus will be absorbed in the jejunum and upper ileum, just like the carbon dioxid bubbles formed through contact of hydrochloric acid with alkaline bowel contents. The gaseous contents of the colon are formed by after-digestion and are products of fermentation and putrefaction. They move rapidly down to the rectum and if their escape is prevented they collect in these portions of the colon which are usually empty of stool, that is, the descending colon, splenic flexure and distal part of the transverse colon. The gaseous overdistention at this place as shown on x-ray plates, frequently reaches

degrees that remind one of a megacolon. Another frequent location for gas distention is the ampulla recti. On rectal examination the walls of the ampulla are scarcely to be reached by the palpating finger, and the sphincter recti appears almost hypertrophied.

Prolonged retention of stool in the colon tends to desiccate it. Fermentation and putrefaction are diminished but its solid consistency makes peristaltic transport of these bowel contents more difficult. The stool will remain for a long time in these parts which normally contain feces and in those which lost their tonus by gaseous overdistention. Its local irritation causes mucous formation which aids its downward movement but the passing of this hard, non-pliable stool through the anus is extremely difficult.

Not only peristalsis but also the aid of the diaphragm and abdominal muscles are necessary for defecation. Therefore, many conditions such as hernias, peritonitic adhesions, arterio-sclerosis, pulmonal and cardiac asthma will interfere with bowel movement.

The bowel contents collected in distended colon parts are often palpable as large tumors. They never obstruct the bowels entirely. The thinned colonic wall always allows stool to pass over the hard, stagnant mass, smoothing its surface and forming it into a globular shape. The consequent diarrhoea—paradox constipation, is a frequent source of erroneous diagnosis. Pre-existing angulations especially between sigmoid and rectum may be made more acute through sinking of the proximal loop by weight, causing complete obstruction.

Spastic constipation in contrast to the previously mentioned types, is largely psychic and exceedingly emotional. The nervousness of these patients, in some cases is the most pronounced symptom. In others, pain, irritation of the mucous membrane and even real inflammatory changes will predominate.

The beginning is usually a slow one. Diseases of the adjoining organs, especially of the pelvis and genito-urinary tract seem to have a predisposing influence.

The cramplike pain seems to be severest in those cases where the nervous factor is most pronounced. The location of pain changes, its severity is in contrast to the softness of the abdominal wall.

Following these attacks large amounts of mucus are excreted. The mucus usually appears stringy, or in skin-like tubes, occasionally in clusters, the stool being either globular or cylindrical in shape. The former is due to an increased con-

traction of the muscularis of the colon, the latter to a spasm of the sphincter ani.

This condition of the stool explains the reason these patients complain of being constipated. On careful questioning and examination we will find that in such cases this condition is secondary. But, the diminished capacity and the stage of contraction of the colon causes a feeling of fullness which drives them to the use of physics. This starts a vicious circle since after every diarrhoea, the colon will retain its contents until a degree of filling is attained, sufficient, to start more active peristalsis. This causes a drastic use of purgatives.

A fluoroscopic examination in such cases easily proves the neurasthenic character of this disease. The irrational contractions, the confused and ineffective forward and backward movements of barium and gas, offer a very striking picture.

As to treatment of all forms of chronic constipation let me say that I am firmly opposed to the habitual use of laxatives. If one takes the time to explain the cause and the course of the disease to his patients, he can easily gain their confidence and gratefulness to a marked degree.

Diet, in my opinion is of prime importance.

In atonic constipation we try to obtain a bulky, moist, pliable stool. Cellulose and proteins should be in small amounts, to prevent an excessive degree of fermentation and putrefaction. This will also diminish gas formation. My patients receive only cooked vegetables and fruits, preferably strained through a sieve. The very bulky greens, such as cabbage, head lettuce, apple peelings, and so on, are prohibited. Thick soups, coarse breads, the various bran and whole wheat breakfast foods, will add roughage to the bowel contents. Agar-agar and especially Psyllium seeds are valuable aids. The seeds are easily taken and I believe superior to Agar. Mineral oil has its advantage as a lubricant.

A change in the colonic flora with the aid of sour milk or the various bacillus acidophilus preparations combined with certain types of starch, for instance, Lacto-Dextrine, will tend to reduce fermentation. In every case complicated by visceroptosis an attempt should be made to relieve it by a properly fitted enteroptosis belt.

For patients of sedentary occupations, exercise and possibly massage are effective. I do not over-estimate the value of massage, except as to the psychic effect, and possibly as a training of the abdominal muscles. Leisurely walking, trunk rolling, setting up exercises are simple and expedient.

So far as medication is concerned Physostyg-

mine will cause contractions of the bowel. These contractions are of a rather incoordinated nature and do not resemble peristalsis.

In case the use of enemas is necessary, I prescribe plain water or salt solution, one to two pints. In presence of very hard, large skybala, I use oil injections, either olive or mineral oil. At times it is necessary to crush the stool in the rectum.

In treating spastic constipation we have a much more valuable drug in Atropin than Physostygmine for atonic constipation. I use the Atropin in tincture form, eight to fifteen drops three times a day.

For diet of this condition, I try to obtain a bulky stool through an excessive amount of roughage. Formation of gas is not so harmful in spastic constipation as it is in the atonic. Therefore, I allow these patients to have all fruits and vegetables in large amounts. Psyllium seeds three to four teaspoonfuls a day are also to be recommended. I favor enemas of olive oil very highly in spastic constipation. In contrast to enemas of water or watery solutions the oil may remain in the colon a long time, at least a few hours and cannot be absorbed in this part of the bowels. Under bacterial influence and possibly through the influence of pancreatic juices, it is separated into glycerin and fat acids. The acids might combine partly with the alkaline of the bile to soap and partly remain free. Soap and acids act as a stimulant for peristalsis. These oil enemas need to be used only at graduated intervals. And, in this way not alone symptomatic relief will be obtained but real causative treatment as well.

Discussion

Dr. Emil C. Junger, Soldier—The other day at the showhouse, some fellows were attempting to make comparisons and one said, what is the similarity between Lindbergh and Limburger cheese? The other replied, well, they both made America air-conscious. Now I will not take a back seat for any vaudeville stage around here, so I say, what is the similarity between Lindbergh and constipation? The reply is, they both defy the law of gravity. I wondered why they had among the exhibits a tableful of Petro-lagar and why this body of doctors needed so much laxative on hand, until I picked up a morning paper and saw the front page. It is the ambition of every normal human being to want to make the front page, and on the page was an announcement of this meeting and the names and pictures of a number of the visiting doctors, and in the same column appeared advertisements of products that would cure constipation. Therefore they are both worth while subjects and considered to be front page stuff.

Dr. Haumeder sent me a copy of his paper, which covers this important subject thoroughly. When I went to school one of the main professors would say, "Gentlemen, if you have any ambitions and desire to get on, start with the bowels and work up." So we are really starting at an important end when we talk about constipation. Out our way we had a Norwegian who had all kinds of trouble, so he procured a box of the so-called pills that are being advertised and took them according to directions. He said, "the first night I took two and got no results; the next night I took four pills, the following night eight, and the next night I took all there were in the bottle, about twenty-four; and it has been about two years now and I haven't heard from them yet!"

There are some serious phases connected with this subject, and if neglected the bowel becomes a cess-pool and that is where our troubles start. I think man is altogether a product of evolution. We have to start away back at the time when we were an oyster and then a fish. In those days our problems were rather simple as compared with those that confront us now. Times and conditions have changed and we have to adapt ourselves to the changing conditions. The stomach is a delicate chemical laboratory and we treat it as a cement-mixer. We put everything of every kind into it, and there isn't any laboratory under the sun that could divide and separate and digest and prepare that food so that it would finally be in the proper stage to move on down and not meet any difficulty. It just cannot be done. Now, our mental condition has a lot to do with it. It depends on the frame of mind we are in. A long time ago, when we had no mind, we did not have this problem, but as we come up the scale of life and develop mentally, then our mind takes control of other things and we take control of the bowel also until finally we get into the position where we say, thou shalt not pass, because it can't be done always at that time and place. That is the result of civilization. You must have a strong mind to be constipated. A little fellow came from the country and visited in the city, but he did not like it; he said, "Why, out home we have the toilet outside and sleep in the house, and in the city they have a sleeping-porch on the roof and sleep outside, and have the toilet in the house." That's the trouble—civilization. We get things all turned around and mixed up, and constipation is the result. The bowel is not emptied completely, so it gradually stops functioning. Of course, anything stops functioning when you don't use it. We had a discussion at a medical meeting about drying up the breasts, and some one said, "If you want to dry up the cow just let the hired man milk her." Moral: Don't let the hired man do it.

Then there is the pay toilet; suppose a man in this day and age didn't have a nickel and had no mental control of his bowels, what will he do? It is a good thing to be constipated at such times.

As to the use of the rectum, originally it was

never intended for anything except to hold a small amount of material, and we do not get that down there any more. The things we eat are all absorbed and give us a lot of toxins and we do not fill the bowel, consequently it does not empty. Once upon a time the rectum was used by obstetricians to find out what was going on during labor—I do not have any love for those obstetricians that have an affinity for the rectum. Leave it alone. What little reputation I have, has been made with the fountain syringe. I have always carried a fountain syringe to supply the bulky material to this rectum so it could function. If we could live fortunately and naturally and increase our work two or three fold by physical exercise so that it would be possible for us to partake of food that has some bulk, we wouldn't be constipated. Constipation is a product of civilization.

Just one more point. I cannot add to Dr. Haumeder's paper anything of a scientific nature because that phase has been covered. But if one passes foul smelling gas, the trouble is that the individual has eaten more than he can take care of, he cannot digest this surplus material and it decomposes into a toxic cess-pool. Therefore cut down the patient's diet one-half or two-thirds and add to the menu some bulky material, such as bran. We need the bulk, we need to live normally.

The last point I wish to mention is the taking of yeast; this product is supposed to do it all, also some other things are recommended as a help. But to adopt the proper way of living is the only thing that will accomplish the desired result. If our patients eat and live right they will not be constipated.

Dr. Haumeder (closing)—In closing I will only say I am glad that Dr. Junger has injected a lighter vein into this rather dry subject.

BRONCHOSCOPY AND ESOPHAGOSCOPY IN THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE CHEST*

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I have chosen this topic for discussion because I am enthusiastic concerning the possibilities of bronchoscopy and esophagoscopy in the diagnosis and treatment of chest conditions. Foreign bodies will not be especially considered in this paper because that phase has been discussed at a previous time. At the very outset I wish to make clear that those practicing this specialty do not wish to detract attention from the standard measures of medical and surgical practice or to substitute some new treatment for old and tried methods that are good. Bronchoscopy

*Presented before Webster County Medical Society, Fort Dodge, Iowa, September 17, 1929.

and esophagoscopy are offered only as valuable aids to the Internist and Surgeon in making a more accurate diagnosis, especially in obscure cases; and as possible adjuncts in treatment.

This special form of examination and treatment may be offered freely because in the hands of those properly trained it is a very safe procedure. Examination can be made with or without anaesthetic and with practically no trauma or shock in the majority of cases. Even in patients quite seriously ill, it is surprising how little their condition is disturbed where proper judgment is used. To be of real value bronchoscopy and esophagoscopy must be carried out in close cooperation with the Internist and Surgeon. It is the common practice now in the large centers to have a Bronchoscopist in consultation in all obscure chest conditions, not late after all other methods of diagnosis have failed, but early when the additional help will be of distinct advantage.

Lung Abscesses for instance cannot have proper treatment unless there is close cooperation between the Internist, the Surgeon and Bronchoscopist. It is the consensus of opinion of many of our best medical men that medical care supportive, postural, etc., should come first, but should not be carried on long without the aid of bronchoscopy, especially in cases that are not doing well. Surgery is the only possible treatment in some of the severe cases, especially those that have become chronic.

McCrae, Internist, says that where the abscess has ruptured into a bronchus, bronchoscopy should be used first and early. *Fischer*, Internist, advises against waiting too long. He suggests bronchoscopic examination by the end of the third week of the disease because valuable information may be obtained, such as the presence of unsuspected foreign bodies, and the location and size of the abscess. *Meyer* states that one third of early abscesses heal spontaneously, but that this fact is no argument against early bronchoscopy, because the procedure is without danger and may prevent many cases from becoming chronic. *Jackson* believes that post-tonsillectomy abscesses respond best to bronchoscopy. To remove the secretion aids the defensive powers of the lung and thus promotes recovery. He advises against wasting valuable time by long continued medical treatment. Delay in these cases is against all sound surgical principles. *Miller*, Internist, says that surgery is necessary in 50% of lung abscesses. Medical treatment and bronchoscopy should be used early in acute cases to prevent, if possible, the chronic or surgical cases.

Bronchiectasis is essentially a chronic con-

dition, and naturally a condition that responds poorly to any kind of treatment. It is hard to make a distinction between this condition and abscess because there is probably always a mixture of the two in any case. In the true sense bronchiectasis signifies cavities formed by dilatation of the bronchi and lined by epithelium, while abscess usually means destruction of tissue. Certainly results of a permanent nature are hard to obtain in a real bronchiectasis mainly because the condition is so chronic. Much relief may be obtained by removing the secretions by suction through the bronchoscope and treating the cavities with some antiseptic solution. Uncontaminated material may be removed from deep in the bronchi for culture and possible vaccine. The best treatment for bronchiectasis, however, is to center the attention, especially in the earlier cases, on proper treatment of the chronic nasal sinusitis which almost invariably antedates and causes the lung condition. The more bronchiectasis is studied the more data is brought forward to emphasize this relation to chronic sinus disease.

Miraculous results from bronchoscopic treatment of these chest conditions are not expected or claimed, but some statistics indicate that there are distinct possibilities. *Kernan* reports 103 cases of lung abscess. In 68 bronchoscopy was indicated and used. 31 were cured, 15 improved, 4 are still under treatment, 9 have been lost sight of and 9 have died. Those following tonsil operation responded best. There were 27 in this group, 15 were cured and 9 of the 15 recovered with only 1 or 2 bronchoscopies. *Kramer* reports 105 cases of abscess in which 27% were cured, 44% improved, 19% either improved or were referred to the surgeon for operation. 10% died. *Moore*, Philadelphia, lists 85 cases of abscess in which 46% were cured, 20% improved by bronchoscopy. *Moersch*, Mayo Clinic, reports 19 cases of which 16 were cured.

There has been some interesting clinical and experimental work done in the last few years in an effort to determine the etiology of lung abscess. There are two prominent beliefs, one that direct aspiration of material from the nose and throat is responsible and the other that infection is carried through the lymphatics or blood stream. Bronchoscopy has been done in several groups of cases following tonsil operation both under general and local anaesthesia. In one group of 100 cases after ether anaesthesia, blood and debris were found in the trachea and bronchi in 62 instances. In a series of 50 local anaesthetic tonsil cases there was blood in the trachea and bronchi in 38%.

Lung mapping with radio-opaque substances has been a decided help in diagnosis of chest conditions, especially in bronchiectasis and abscess. Jackson some years ago suggested and used bismuth subcarbonate to outline the trachea and bronchi. During the past few years iodized oils have been used extensively, and when properly handled seem to be satisfactory and quite harmless. As a rule a 40% solution of iodine in a vegetable oil is injected directly into the trachea or by means of the bronchoscope into a main or secondary bronchus or a cavity. Study of the chest can then be made with fluoroscope or x-ray and an idea obtained of the presence or absence of cavities and their size, location and number. Bronchiectatic cavities show very plainly and much better than a lung abscess because in the latter the cavity is filled with pus or fluid and very little of the oil can enter it. This filling difficulty is a valuable differential diagnostic point between the two conditions. The amount of iodized oil used is important because too much may drown portions of lung substance, obscure the picture and possibly give false information concerning the presence of a cavity. There is also a certain amount of danger in using these oils as it is found that a considerable portion of the solution may be present in the lung many months after its introduction. Iodism may be a result and it is possible to drown the lung and cause death. Besides helping in the diagnosis of obscure conditions these iodized oils may be of considerable therapeutic value because of the iodine. This method of diagnosis is now used quite freely in practically all chest clinics, is a valuable help, and there is very little danger if proper judgment is used.

Primary Carcinoma is another chest condition in which bronchoscopy has been valuable in making an accurate diagnosis. This disease is much more common than it is usually thought to be.

Vinson, of Mayo Clinic, reports 77 cases of primary carcinoma of the lungs and in 29 of these positive diagnosis was made during life by examination of tissue removed through the bronchoscope. He emphasizes the point that secondary infection with the symptoms of chronic bronchitis, tuberculosis or bronchiectasis often delays and confuses the diagnosis of malignancy. Because of the bronchial obstruction caused by the tumor mass there may be an atelectasis of the lung produced with cough and bloody sputum. *Schall* reports 5 cases wherein diagnosis with bronchoscopy and biopsy was positive. *McCrae* says that primary carcinoma more often involves the bronchi first than the lung tissue. He mentions 14

cases in which the diagnosis was made by biopsy through the bronchoscope.

Esophagoscopy plays a great part in eliminating the possibility of foreign bodies as well as in removing them. Possibly its most pleasing function is to eliminate definitely a malignant condition, often when all other clinical signs point to one. Many cases are now on record where a supposedly malignant condition proved to be benign papiloma, lipoma, fibroma, or hyperkeratosis. Ulceration simple, tuberculous or specific or perhaps cardiospasm, twist, or diverticulum of the muscular coats produce symptoms that simulate very closely those of a malignant condition. Naturally final and conclusive evidence of a malignant condition confirmed by biopsy eliminates all speculation and determines the future quite definitely.

Dilatation of benign and malignant strictures and spasmodic contractures or twists with often a rather marked restoration of function proves to be one of the most helpful phases of endoscopic work. The so-called cardio-spasm, which is probably a misnomer, responds often in a truly remarkable way to dilatation for varying lengths of time and sometimes permanently. Quite often patients suffering from carcinoma of the esophagus develop a complete obstruction to passage of food just because the strictured lumen is obstructed by solid food. Removing such obstructions through the esophagoscope sometimes changes the entire clinical picture quite suddenly. Often the starvation and emaciation of these unfortunate patients has been brought about not by the malignancy itself but by the food obstructions in an otherwise fair-sized lumen. One such case has reported to us at intervals for two years in a pitiable state of starvation only to go back to a soft diet each time after removal of meat from a scirrhus carcinomatous stricture. It is often surprising how long these proven malignant cases can be kept alive and fairly comfortable by occasional esophagoscopy with removal of foreign material or dilatation with a heated bougie. During the past year a child was brought to the hospital in an advanced stage of starvation supposedly caused by a lye stricture which had existed for years. For over six weeks this patient had had very marked difficulty in swallowing, and for the week before entrance had been unable to take anything except very small quantities of water. The lye stricture was blamed for the condition and nothing was done to prove or disprove this idea. The child died of starvation the same day it entered the hospital. At autopsy a cherry was found entirely blocking the strictured lumen which was

ample to have taken care of an ordinary diet if not obstructed. Esophagoscopy at any time during the many weeks would undoubtedly have saved its life. In another instance we removed a prune pit from an old typhoid stricture. Complete obstruction was present but had existed for only a short time and a good result was obtained.

At this point lantern slides were used to report some interesting cases with x-ray findings and statistics of groups. Histories and x-rays of patients from the private practices of my associate Dr. J. B. Naftzger and myself follow:

Slide No. 1 Case Report: Peanut in bronchus of five year old child for nine weeks with resultant lung abscess. Patient had been treated for pneumonia, empyema (rib was resected) and tuberculosis. Definite history of choking while eating salted peanuts. Foreign body not considered and no search made for nine weeks. Bronchoscopy: removal of pieces of peanut and large quantity of pus from bronchus. Prompt and complete recovery. Emphasizing delay in diagnosis.

Slide No. 2 X-ray of chest of above patient showing lung abscess or drowned lung tissue, almost entire left lung involved.

Slide No. 3 and 4 X-ray of chest of child of five before and after lung abscess caused by retained portion of a corn kernel. First picture taken at time most of a kernel of corn was removed was negative. Second picture showed abscess four weeks later when there was septic temperature, loss in weight and chest findings. Bronchoscopy with removal of the thin outer covering of a kernel of corn. Pus drained through bronchoscope. Eventual recovery. Only inside of kernel had been removed at first bronchoscopy.

Slide No. 5 X-ray of chest of 4 year old child with evidence of abscess of right lung. Possible history of foreign body. Bronchoscopy. No foreign body found. Much pus with foul odor removed by suction. Death. Autopsy showed abscess of lower lobe right lung. Tuberculous nodules in spleen, liver, kidneys and lymphatic glands. No evidence of tuberculosis in lung.

Slide No. 6 X-ray of chest of child, four years old with one side opaque. Probably drowned lung. No history of foreign body. Child brought to hospital in extremis and cyanotic. Bronchoscopy. Right bronchus filled with pus and there was no foreign body. Death on table. Possibly massive atelectasis.

Slides No. 7, 8 and 9 X-rays of chests in cases of bronchiectasis showing cavities outlined with iodized oil. One demonstrated stenosis of bronchus.

Slide No. 10 X-ray of chest of male 45 years of age with tumor of the trachea. X-ray apparently negative. Patient had been treated as an asthmatic for a year, adrenalin to control attacks. Difficulty in breathing increased with cyanosis. Bronchoscopy: Tumor mass protruding into and involving $\frac{3}{4}$ lumen of trachea from right side. Trachea displaced to left. Surface slightly nodular, no bleeding. Wasserman reported negative on entrance to hospital. Long tracheotomy tube inserted to carry air past the mass because of extreme difficulty in breathing. Another wasserman reported positive. Specific treatment. Rapid improvement with great reduction in size of mass. Tracheotomy tube removed. Breathing O. K. Patient left hospital, to continue specific treatment. Four months later communication that patient was in bad condition. Had gone to a clinic where a wasserman was negative. Portion of tumor was reported as carcinoma. Specific treatment stopped. Difficult breathing returned. Death in 6 weeks, cause unknown, apparently pneumonia. Question: Was the mass a gumma or carcinoma or both?

Slide No. 11 X-ray of chest, child of four weeks with very large screw in upper portion of esophagus. Patient came to the hospital for tracheotomy for diphtheria. Antitoxin had been of no avail. Pressure of screw on larynx gave severe respiratory symptoms.

Mention made of two other babies, one four weeks and one one year of age. Both came to the hospital as diphtheria. Large doses of antitoxin had been given. One had pieces of egg-shell in the larynx, the other a rectangular piece of celluloid.

Slide No. 12 Case Report: Child of five with unsuspected metallic foreign body in esophagus for eight months. Child was treated for stomach trouble for months because of inability to eat solid food. Tonsils and adenoids were removed to help swallowing. Finally respiratory symptoms with treatment for asthma and bronchitis. After eight months an X-ray was taken which showed large metallic foreign body in esophagus. Removal of foreign body and subsequent dilations of stricture gave good result.

Slide No. 13 X-ray film of above case. Foreign body was a rectangular piece of brass from the timer of a Ford car.

Slides No. 14, 15 and 16 X-rays showing diverticulum of esophagus in three cases. Ages 64 to 68. Barium outlined pouches. One high up in neck could be emptied by pressure over sternocleidomastoid muscle. All had typical history of difficult swallowing with regurgitation, often of food

taken many hours before. Patients all in fairly good health, refused operation.

Slide No. 17 X-ray of chest of child of four years after barium. Definite evidence of obstruction at cardia. Child had had gradually increasing difficulty in swallowing for many months. Finally refused solid food entirely, would chew it up and put it on plate. Became emaciated. *Esophagoscopy*: No foreign body. Definite obstruction at cardia, no ulceration. Tube passed into stomach with difficulty. Probably so-called cardio-spasm or twist of the lower end. Complete recovery. No difficulty in swallowing now for four years. Only case in child in our experience.

Cardio-spasm or twists of lower end of esophagus discussed with reference to several adult cases. Cause still unknown, probably not spasm of any sphincter but a twist with contractures of muscles. Mosher's work cited with relation to part played by lung tips and liver.

Slide No. 18 X-ray of barium study of carcinoma of lower esophagus in man of 62 years. Multiple strictures with dilatation of middle esophagus.

Cases cited wherein starvation was relieved by esophagoscopy with removal of meat and other food from strictures and subsequent dilatation with heated bougies. Lives prolonged and condition made endurable by these simple measures.

Slide No. 19 Statistics of foreign body cases: Seventy-one cases. Forty in air passages, thirty-one in esophagus. In air passages corn kernels were removed in eleven cases, peanuts in six, and sandburs were removed in five. In the esophagus coins came first with eight; chicken bones second with six; safety pins third with four; and buttons fourth with three.

Slide No. 20 Statistics recording results in foreign body cases.

Bronchoscopy:	33 cases with recovery in	31	and death in	2
Esophagoscopy:	31 cases with recovery in	29	and death in	2
Laryngoscopy:	7 cases with recovery in	7		

Totals	71	67	4
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Slides No. 21 and 22 Various bronchoscopic and esophagoscopic instruments with sketches of methods of introduction (Jackson).

SUMMARY:

For the sake of brevity some of the possibilities of bronchoscopy and esophagoscopy will be given in outline form as a summary.

Diagnosis:

1. In many cases this procedure offers the only opportunity for a direct view of a condition that might be unrecognized otherwise.

2. Negative endoscopic findings like other negative findings make possible diagnosis by exclusion.

3. In some instances of possible malignancy it affords the only means of making a final and conclusive diagnosis by allowing a biopsy to be made.

4. Unsuspected foreign bodies may be found to explain symptoms which were otherwise obscure.

5. Malignancy may be diagnosed, or eliminated from the diagnosis which is often more important. Benign tumors may be recognized and removed.

6. Bronchoscopy may succeed where other methods fail in making a correct bacteriologic diagnosis, because uncontaminated material may be removed from deep in the bronchi. At times tubercle bacilli may be found when they have been persistently negative in the sputum.

7. Hemoptysis thought to be due to tuberculosis may be traced to simple ulceration, benign tumors, foreign bodies, abscesses or malignancies. In one series of bronchoscopic cases, tubercular cases were excluded, but still hemoptysis appeared in 52% of the group.

8. By using iodized oils and the x-ray definite localization of abscesses, bronchiectatic cavities, and foreign bodies may be made possible in a large percentage of cases. These iodized oils may be used without the aid of the bronchoscope but not with such accuracy and precision.

9. Cardio-spasm, diverticulum and twists of the esophagus may be recognized as causes of obstruction often when malignancy has been diagnosed.

Treatment:

1. Evacuation of lung abscesses or bronchiectatic cavities by suction of pus through the bronchoscope. Dilatation of stenoses of bronchi or removal of foreign bodies. The removal of the pus and other secretions aids the defensive powers of the lung. Impaired drainage with deficient aeration and ciliary action are prime factors in producing diseases of the lung.

2. Removal of benign tumors by surgery or by means of diathermia.

3. Treat simple erosions and ulcerations.

4. Dilate esophageal strictures, cicatricial and muscular (cardio-spasm).

5. Place radium directly in a malignant tumor.

6. Remove plugs of mucus and viscid secretions in massive atelectasis, tracheo-bronchitis and possibly in unresolved pneumonia. Some cases of broncho-pneumonia in children may be greatly benefited by bronchoscopic treatment. Removing the secretions promotes the return of ciliary action and the cough reflex.

7. In the treatment of certain cases of asthma

good results may be obtained by removal of the thick secretion often present in these cases. The viscid property of this material is not realized unless seen through or in the bronchoscope because when it is coughed up it is diluted and liquefied by the saliva. Vaccines may also be made from uncontaminated material.

The object of this paper has been to remind the medical profession outside our specialty that we feel that bronchoscopy and esophagoscopy have a definite place in the diagnosis and treatment of chest conditions. We are desirous of the opportunity to cooperate with the Internist and Surgeon to the end that the patient may be benefited. Without this cooperation, we know that many patients will neither receive the careful study that is possible, nor the best treatment that is available.

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MALIGNANT TUMORS OF THE TESTICLE*

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In the past five years some thirteen testicles have been examined histologically in the laboratories of St. Joseph's Hospital. This number included all testicles removed for whatever cause. A few were involved in massive inguinal hernias which produced such pressure changes in the testicle that the surgeon regarded it wise to remove the testicle.

Seven of these testicles were found to contain tumors, six of which were malignant. The remaining six showed inflammatory changes and will not be discussed here. One, a benign tumor, was a leiomyofibroma of the epididymis occurring in a man seventy years old. Five of the malignant tumors were of the embryonal carcinoma type. One was an adenocarcinoma and gave the picture of a carcinoma developing from adult tissue.

Complete histories of these cases were not available to me and I will not attempt to review them but in a general way. All the patients were in the most vigorous years of their lives, namely 32, 38, 30, 43, 26 and 25 years of age, with an average of 32.3 years. All but two gave a history of a previous injury. The time elapsing before a physician was consulted was in the first case one year, in the second four months, and in the third two months. The remaining three were not known. Metastasis in the regional lymph

glands was noted in two cases at the time of operation. In four cases the tumor was in the left testicle and in two cases in the right. Two of the cases are known to be dead, one living one year and the other eight months following operation. Metastasis occurred in the lungs early in both cases. In one case the malignant tumor developed in an undescended testicle.

In no case was a bilateral tumor found. Bilateral primary malignant tumors of the testicles are rare. Higgins¹ reported one case. In a review of the literature he found that Kocher in 1887 could only find mention of some fifteen cases. In some of these cases the question arose as to whether the opposite testicle was involved secondarily. Later he found nine other cases.

GROSS PATHOLOGY

Five testicles were moderately enlarged. The undescended testicle was very large, weighing three pounds. All the tumors were located in the body of the testicle. The tunica was smooth and not grossly involved. On section, the testicle showed rather large, irregular, soft white or grayish areas scattered throughout most of the body of the testicle. Some of the areas were necrotic and were spotted with fresh or old areas of hemorrhage. The adenocarcinoma was cystic. The cysts varied from very small cysts barely visible up to cysts three to four millimeters in diameter. These cysts were filled with a thick, glary, strawcolored fluid. Here and there a few gray colored solid areas were noted.

MICROSCOPIC PATHOLOGY

The embryonic carcinomas were composed of solid nests or cords of round or polyhedral cells containing large hyperchromatic vesicular nuclei with one or more large nucleoli. Some cells contained two and sometimes three nuclei. Mitotic figures were common. These malignant cells were embedded in a rather fine interlacing network of loose connective tissue. In some testicles the masses of cells were surrounded with a rather close connective tissue from which delicate strands entered the cords of cells acting as a supporting frame work. Areas of necrosis were numerous and frequently these areas were infiltrated with fresh or old blood. The tumors were usually very vascular and occasionally malignant cells could be seen in the lumen of the vessel. The process was infiltrative and in several cases the entire testicle was infiltrated with the malignant cell. The seminiferous tubules showed marked atrophy and spermatogenesis was absent.

*Presented before the Seventy Eighth Annual Session, Iowa State Medical Society, Des Moines, Iowa, May 8, 9, 10, 1929.

The adenocarcinoma showed a different picture. The cysts were lined with a single layer of columnar epithelium. These cells in areas did not deviate greatly from adult cells. Here and there large goblet-like cells could be seen. They were filled with a mucous-like substance which stained blue with hematoxylin and was readily stained with Bismark Brown. There were numerous papillary projections of stroma into the

suppressing all others. Ewing also favored this view.

Chevassu, a French writer, while admitting that many of these tumors were of the teratomatous origin, maintained that the common round-celled tumor of the testicle is derived from adult spermatoblasts and is neither embryonal nor teratomatous. He bases his opinion on the resemblance of the tumor cell to the spermatoblasts.

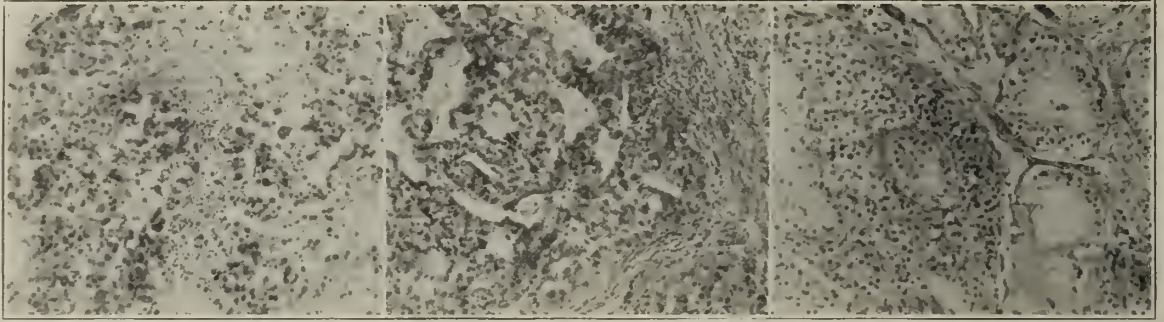


Figure 1. Case 1. Undescended testicle. An embryonal carcinoma, sometimes called a spermatocytoma or seminoma.

Figure 2. Case 2. Embryonal carcinoma.

Figure 3. Case 3. A diffuse embryonal carcinoma. Note resemblance of tumor cells to the spermatocytes of the seminiferous tubules.

cyst spaces all of which were covered with flat or columnar epithelium. Here and there these cells infiltrated the stroma and took on a more malignant appearance. Sometimes these cells formed solid areas in a diffuse or alveolar structure.

The origin of these common malignant tumors of the testicle has never been fully determined. For many years two rather distinct views have been maintained. Due to the fact that many of

Recently Gordon Bell² has contributed an important study which favors the origin of certain tumors from the testicular tubules. Also very recently Stevens³ and Ewing reported a case of adenocarcinoma of the testicle in which they felt they could trace the transformation of normal tubule cells into tumor cells. They stated that the case presented clinical, gross anatomical and histological features which separate the tumor sharply from the common embryonal tumor of

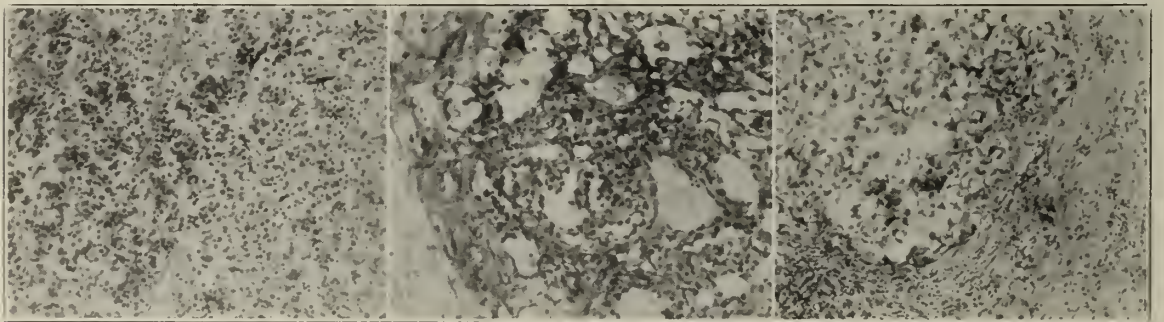


Figure 4. Metastatic nodule of lung from Case 3.

Figure 5. Case 4. A diffuse embryonal carcinoma. Note vacuolated cells.

Figure 6. Case 5. Embryonal carcinoma. Note again vacuolated cells.

these tumors showed evidences of mixed and teratomatous structures, it was concluded that nearly all the cellular tumors are of embryonal and teratomatous origin. Wilms and Pick gave much time in studying these tumors and they believed there was a one sided development of a teratome, one anaplastic element outstripping and

the testes. The occurrence of the tumor later in life, the slow course and the absence of metastasis after a long period indicate a different clinical picture from that which exists with the malignant embryonal tumors.

SYMPTOMS AND DIAGNOSIS

In reviewing these cases and those reported by

other authors, I am forced to conclude that there are no pathognomonic signs or symptoms of a malignant tumor of the testicle. Pain and tenderness was noted in two cases out of four. In Higgins' series of twenty-three cases testicular pain was noted in four cases or 17.4%; lumbar pain in seven cases or 30.4%; loss of weight in six cases or 26% and loss of appetite in three cases or 13%.

In making a differential diagnosis hydrocele, haematocele, gumma and tuberculosis must be considered. In order to eliminate tuberculosis one should go into the personal and family history. A careful physical examination, especially

sium iodide and mercury may establish the diagnosis as these drugs will cause a gumma to decrease in size in about ten to twelve days. It is well to bear in mind that syphilis and a malignant tumor may co-exist so that too much dependence must not be placed upon a positive Wasserman in a case in which the tumor does not respond to anti-syphilitic treatment.

In the beginning a malignant tumor of the testicle is firm and smooth and no definite change in the general contour of the testicle is found. However, later nodules may be felt. These tumors are always located in the body of the testicle and the epididymis is usually palpable and uninvolved,

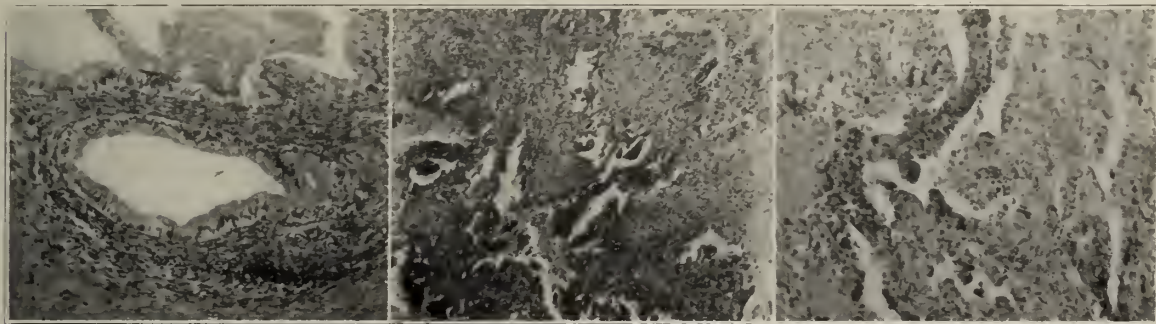


Figure 7. Case 6. Adenocarcinoma showing a benign area. Note the columnar type of cell with a few goblet cells filled with mucous.

Figure 8. Same case as Figure 7 showing a papilliferous area.

Figure 9. High power view of a malignant area. Note numerous mitotic figures.

of the chest to eliminate any active pulmonary tuberculosis, should be made. One should always keep in mind that the first evidence of tuberculosis in the testis occurs in the epididymis and thence extends along the vas which can be felt as a nodular cord. The seminal vesicles and prostate should be examined for evidence of tuberculosis. The body of the testicle becomes involved only in the late stage. The temperature should be taken.

In hydrocele transillumination should be done keeping in mind that a hydrocele and a malignant tumor may co-exist. The testicle should always be carefully examined during the operation for hydrocele to make sure that no tumor exists in the testicle; or if a hydrocele is tapped, the testicle must be carefully palpated after the tapping to determine the presence or absence of a tumor.

A haematocele is perhaps the most difficult. Learn whether or not there is a history of recent trauma. The epididymis is usually concealed in the hemorrhage late and the tunica becomes obliterated while the tunica can be felt over a tumor.

In cases of tumor of the testicle never fail to have a Wasserman test and at the same time try to elicit a history of syphilis. In some cases if doubt still exists, the administration of potas-

The skin and tunica are usually not involved and are freely movable.

In the case of an undescended testicle the tumor must enlarge to the point of producing symptoms before a tumor can even be suspected. If the testicle is in the inguinal canal one can usually palpate and determine the presence or absence of a tumor.

Many types of treatment have been advised for these malignant growths of the testicles:

1. Orchidectomy followed by x-ray or radium.
2. Orchidectomy followed by a radical resection of the lymph glands.
3. X-ray and radium alone.
4. Colleys serum.

Usually at the time of operation if the inguinal and deep iliac glands are involved there is little hope of accomplishing much in the way of a cure or even a delay. In fact in the more malignant embryonal type orchidectomy followed by thorough treatment with x-ray or radium is perhaps the procedure of choice. If the lymph glands are involved at the time of operation, a radical procedure should not be carried out. I believe x-ray therapy is preferable in these cases. Usually if the deep glands are palpable they are so enlarged that they can not be removed successfully. In the

two cases in which death occurred pulmonary metastasis occurred early and x-ray had little effect upon the pulmonary metastasis while the inguinal glands were markedly reduced. I have had no experience with Colleys serum.

Before a radical is done a microscopic report on the removed testicle should be obtained. Cases have occurred in which a radical operation was done and later a report of a gunma of the testicle was announced. Also the pathologist should give the surgeon some idea of the degree of malignancy. He should report whether the tumor cells are of a relative mature type or of a very malignant embryonal type. The surgeon can then better decide the type of treatment to be followed.

- (1) Higgins, Charles C.; *Ann. of Surg.*; vol. 88, p. 242.
- (2) Bell, Gordon; *Brit. Jour. of Surg.*; vol. 13, p. 282.
- (3) Stevens, A. R. and Ewing, James; *Ann. of Surg.*, Vol. 88, p1074.

Discussion

Dr. Wm. R. Hornaday, Des Moines — Doctor Starry has given us a practical view point concerning these testicular tumors. The projected slides on the screen, it seemed to me were good.

There is a great deal of mystery surrounding the classification of these tumors but in a general way in this country that of Ewing is accepted. Briefly, this includes the teratomas and carcinomas with varying degrees of malignancy. In Europe after the teaching of Chevassu the term seminoma is employed to which the speaker referred.

These tumors are always interesting as studied clinically, most of them highly malignant as they come on in early adult life from the years of 15 to 30. Extension is by way of the deep lymphatics into the illiac region and up in the posterior part of the abdomen, following along in a general way that of the inferior vena cava. These enlarged lymph nodes can be easily palpated through the abdominal wall in the patient who is slender. Continued extension upward is by way of the thoracic duct and we find the "palpable node" under the left clavicle. One should immediately suspect a tumor of the testicle when this palpable gland is discovered. We should remember that when the lymph nodes in the groin are palpable that this points to a disease process of the scrotum and not that of the testicle itself, although when a tumor of the testicle is far advanced the scrotal covering will also be involved and then the nodes in the groin will be palpable.

The only chance a patient has for his life is to excise the tumor and this must be done as early and as clean as possible. Again I would like to repeat that a tumor of the testicle should be removed early, just as soon as the diagnosis is made. Attempts at aspiration for fluid should never be done. This caution also applies to removal of a section for microscopic study, a procedure also which should

not be done. Dean advises deep roentgen ray directed against the lymphatic drainage preliminary to operation and this I believe is commendable. Apparently it is not necessary to resect the pelvic lymph nodes when a tumor of the testicle is removed. I recall three cases seen years ago in association with Doctor Fay in whom the testicle was removed for that of tumor, one in 1919 and the others in 1921 and 1923. The last reports from them are that they are alive and well.

Dr. Starry (closing): I am grateful for Dr. Hornaday's discussion, and especially to hear him agree that we should be careful in our prognosis, because these tumors are not all as malignant as we are inclined to believe from the history and even from the histology of cases presented in the literature. I believe that frequently under careful histological examination a favorable or an unfavorable prognosis can be given because of the relatively malignant on non-malignant appearance of the cell. These cases do represent a real danger, and from those that I have found I feel that in examining the testicle a malignant tumor should be the first thing in mind; in other words, we should regard the growth as very malignant unless it can be proven to be otherwise.

I agree with Dr. Hornaday that we should not cut into a testicle, but that it is wise to be radical and remove the organ in toto, then wait for report from the laboratory, because if when one cuts into these tumors they have not metastasized they are sure to do so.

OBSTRUCTION OF THE COLON BY POST-OPERATIVE ADHESIONS*

PAUL A. WHITE, M.D., M. S. in Surgery,
F. A. C. S.

ARTHUR A. GARSIDE, M.S., M.D.

Reports in the literature concerning obstruction of the colon by adhesions are meager. Many obscure abdominal complaints are explained to patients on the basis of adhesions. This diagnosis may often serve as a cloak for incomplete study or may be a defensive mechanism on the part of the physician in handling a neurasthenic patient. Surgeons of large experience have laid down the dictum that unless adhesions are producing obstruction they should not be disturbed. We have found this a good policy to follow in general diagnostic considerations and at the operating table. No one will deny, however, that adhesions, congenital in origin, secondary to intra-abdominal inflammatory conditions, or following operation may produce distressing symptoms and at times

*From the Central Clinic, Davenport, Iowa. Read before the Association of Resident and Ex-resident Physicians of the Mayo Clinic, Rochester, Minn., October 8, 1929.

obstruction. Most of these involve the small bowel and a very great preponderance of them are post-operative.

Brugh¹ reports finding stenosis of the sigmoid from adhesions with distension of the ascending and transverse colon during operation for perforating duodenal ulcer. This was probably secondary to previous abdominal inflammation.

Collins² reported finding at operation in several instances adhesions binding the transverse to the ascending colon and cecum producing angulation at the hepatic flexure and in the transverse colon. He applied the term "water trap" to this condition. Previous or present cholecystitis, appendicitis, or other abdominal inflammation seemed the etiological factor in these cases. He also reported finding post-operative adhesions binding the transverse to the ascending colon in one instance but the terminal ileum was also involved which may have largely accounted for the symptoms of obstruction.

We wish to make four case reports: one that we consider to have been volvulus of the sigmoid occurring postoperatively producing complete obstruction; one illustrating the production of the "water trap" situation described by Collins,² due to previous intra-abdominal inflammation causing intermittent stoppage; one where post-operative adhesions held the terminal third of the transverse colon tightly to the upper end of a previous right rectus incision with marked constriction; and one where adhesions caused almost complete obstruction at the hepatic flexure following cholecystectomy.

(1) Mrs. J. F., age 44 had been operated upon five weeks previous to our first observation of her. The gall bladder with several stones and the appendix had been removed. She had been told on previous occasions during several years that her symptoms were due to gall stones. A few days before operation a plain roentgenogram showed calculi which for some reason the attending physician believed to be renal stones. A surgeon from a distant city made a lumbar exploration with the understanding that the gall bladder would be explored thru an anterior incision if no stones were found in the kidney. This was done and the double procedure may have been a factor in her prolonged convalescence and marked debility. Many neurasthenic symptoms secondary to the menopause were present.

During the absence of the nurse she rose from the bed and presumably attempted to cross the room and was found a few minutes later on the floor. She and the nurse both stated that abdominal distension began at once and was definitely observed to ascend along the left abdomen, across

to the right and soon became general. One of us (P.A.W.) saw her in a merely incidental manner, being in the hospital for another consultation five days after this episode. It was generally conceded by all in attendance that she would expire that night. The distension was extreme, with every evidence of impending collapse—clammy skin, thready pulse and marked prostration.

Exploration was advised and left lower rectus incision made under local anesthesia. The portion of the descending colon visualized was enormously distended being 8 - 10 inches in diameter. Fearing to manipulate it in any way or even to insert a hand for exploration, a trocar was inserted releasing a rush of gas and collapsing the bowel. The trocar was removed and a catheter inserted, held in place by a purse string of silk. The edge of the peritoneum was sutured about a knuckle of the bowel and the wound closed with an additional Penrose drain down to the peritoneum. A few days later the wound fell apart and bowel contents bathed it freely. However, the bowels soon began to move normally and there was no further complication in convalescence. A small fecal fistula was closed by burying a radium needle in it two years later.

(2) Dr. A. S., dentist, age 44, was operated upon by us September 26, 1929, under the diagnosis of acute appendicitis. He had a severe attack of right abdominal pain during the previous night, vomited several times, ate no breakfast or lunch and came to our office at 2:00 P. M. He described his pain as covering the upper and right portion of the abdomen. His tenderness was rather diffuse on the right side. There were no urinary symptoms and urine examination was negative. Blood count showed 24,000 leucocytes. The temperature was 102°. Physical examination in other respects was negative. He had taken a cathartic and two or three enemas so his preparation for a plain X-ray film was fair but it showed nothing. He had experienced several similar attacks during the previous two years and often had distressing attacks of flatulence after meals, considerable distension between meals or at night. The former were relieved by vomiting, the latter by enemas.

At operation, a long atrophic moderately inflamed appendix covered with adhesions was found and removed. This seemed insufficient to account for the symptoms presented. Further exploration showed marked inflammatory reaction along the ascending colon which was covered with a veil of adhesions. On separating them the transverse colon was found bound tightly to the ascending colon down to the cecum and up to the hepatic flexure with sharp angulation at the latter

point, and in the transverse colon near the cecum. The adhesions were cut and tied, raw areas covered and the parts separated up to the hepatic flexure. He feels no more flatulence or cramping after meals and his recovery has been uneventful.

(3) Miss A. S., age 29, spent two years in a nurse's training school a few years ago, was a morphine addict, and presented herself for consideration of a post-operative abdominal sinus, April 20, 1929. She had an appendectomy in 1923 and an exploration for partial bowel obstruction in November, 1927, both elsewhere. The surgeon performing the last operation stated to us that he found nothing but a few post-operative adhesions.

Physical examination was negative. Blood, urine, and Wasserman were negative, as was X-ray of the chest. X-ray examination of the colon, which might have been illuminating in the light of subsequent findings, was not done. There was an abdominal scar in the right rectus region about equally above and below the umbilicus. Leading from the lower end of the incision, three inches below the umbilicus a sinus extended across the abdomen to the left for four inches and presented a second opening. Probing showed no intra-abdominal communication and bismuth injection with rentgenogram showed it to be superficial with no ramifications. She had had some gaseous eructations but no bloating. In July, 1928, nine months after the last operation, the scar became reddened then drained but healed in two weeks. In September, 1928, and February, 1929, this process was repeated and the sinus had not healed since the last drainage.

On May 9, 1929, the sinus tract was excised. It was entirely in the fat and well above the fascia, running subcutaneously. She did well for several days after the operation when distension occurred followed by vomiting unrelieved by enemas or gastric lavage. May 16, 1929, the abdomen was opened thru the old right rectus incision. The right two-thirds of the transverse colon, the ascending colon and two meters of the ileum were distended. Examination revealed the descending colon and sigmoid collapsed. The transverse colon was enmeshed in a mass formed by the gastro-colic and great omentum. This mass was adherent to the upper angle of the old wound in such a way as to make an angulation and half twist of the transverse colon. Freeing of the adhesions was followed by collapse of the proximal bowel areas. Her recovery was uneventful and her subsequent course has been normal except for persistence of a sinus in lower angle of the wound. This failed to heal after two months and

we believed its cause to be factitial. She has been operated upon elsewhere for this condition.

(4) Mrs. J. B. C., age 34, was operated upon by us, July 1, 1927, when cholecystectomy and appendectomy were done. The appendix was subacutely inflamed, the gall bladder thick-walled with no stones but adherent to the duodenum throughout its length. Recovery was without incident. She was seen after an interval of eight months, March, 1928, regarding a sort throat with no other complaints. On the night of December 19, 1929, seventeen months after her operation, she was observed in an attack of acute abdominal pain with distension, vomiting, and diffuse tenderness more pronounced along the right side. She told of having had increasing constipation, recurring cramp-like seizures, and abdominal distension during the past three months. These symptoms were less pronounced at times and worse at other times. They had culminated in this attack which had continued with increasing intensity throughout the day.

The pain, while constant, was intensified in intermittent cramp-like seizures which were unrelieved by repeated injections of morphine. A hollow gurgling sound with a metallic tinkle and rush of gas characteristic of bowel obstruction could be heard over the abdomen with the stethoscope. Immediate operation was insisted upon but refused. She continued with considerable pain and distension for three days but was gradually relieved. Considerable blood was passed in the stools on the second and third days.

Nine days later, December 28, she experienced another attack of pain but this was located in the right lumbar region, radiating along the right iliac fossa, into the thigh. Pus, blood, and bacteria were found in the urine. Temperature was 101°, white blood cells 13,000. Cystoscopic examination revealed pus, blood, and colon bacilli in the right kidney specimen. The urine from the left side was clear. The catheter remained in the right kidney pelvis twenty-four hours for drainage, being irrigated every three hours with boric solution while mercurochrome was instilled at eight hour intervals. The kidney infection subsided and the urine gradually became normal during the next month. March 27, 1929, over three months after the first seizure, the patient experienced another attack of pain with distension and vomiting, not as severe as formerly, but enough to convince her that operation was necessary.

Operation March 28, 1929, thru the former right rectus incision disclosed a dilated ascending colon and cecum and collapsed transverse colon. A band of adhesions slightly proximal to the hepatic flexure extended across the top and

around to the under side of the colon arising deep in the liver fossa. As these contracted the colon was gradually rolled upward and outward then downward compressing it into the old gall bladder bed making an angulation with almost complete obstruction. Cutting this band freed the bowel and its contents. The patient has had no further trouble. The acute pyelitis with colon bacillus infection developing in the right kidney immediately after the first severe obstruction at the hepatic flexure was of especial interest.

Summary: (1) The colon is rarely obstructed by adhesions. Congenital bands, intra-abdominal inflammation, and post-operative adhesions may cause partial or complete obstruction.

(2) Great caution should be observed in attributing obscure abdominal symptoms to adhesions. Patients grasp this diagnosis readily and may be led into much meddlesome unnecessary surgery.

(3) Four case reports are made:— (1) obstructing volvulus of the sigmoid; (2) obstruction of the transverse colon by adhesions secondary to inflammation in other abdominal organs; (3) two cases of obstruction of the colon by post-operative adhesions. In one of the latter cases acute pyelitis with colon bacillus infection developed in the right kidney following a seizure with obstruction at the hepatic flexure.

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IOWA TUBERCULOSIS ASSOCIATION ANNUAL MEETING

Many features of interest to the medical profession are listed for the annual meeting of the Iowa Tuberculosis Association and the quarterly meeting of the Iowa Sanatorium Association at the Hotel Martin, Sioux City, Thursday and Friday, February 27-28.

Dr. J. A. Myers of Minneapolis, a well known authority on childhood tuberculosis, and president of the Minnesota Public Health Association, will speak on tuberculosis in children, Thursday afternoon. Thursday morning Dr. E. B. Godfrey, city and school physician of Sioux City, will speak on county health units with a discussion opened by Dr. D. C. Steel-smith, deputy commissioner of the Iowa State Department of Health. Dr. H. N. Lanpher, state epidemiologist, will discuss communicable diseases of children. Dr. H. V. Scarborough, superintendent state sanatorium, will report on the research findings of a special committee on institutional care of children with tuberculosis and heart disease. Dr. J. C.

Painter, superintendent Sunny Crest Sanatorium, Dubuque, will give local observations of childhood tuberculosis. Dr. S. A. Slater, superintendent of the sanatorium of Worthington, Minn., will answer the question "Does northwestern Iowa need a county sanatorium." Dr. E. S. Dickey of the U. S. Bureau of Animal Industry, will discuss the relation of human and animal tuberculosis. Other speakers Thursday will be Dr. John H. Peck, president of the Iowa State Medical Society; Dr. Roy F. Bellaire, president of the Woodbury County Medical Society and an authority on X-ray; Dr. W. D. Runyan; Mrs. M. P. Summers, president of the Iowa Congress of Parents and Teachers, and Dr. E. A. Meyerding secretary of the Minnesota State Medical Society.

The Friday speakers include Vernon D. Blank managing director of the state medical society; R. C. Williams, director of research of the State Department of Public Instruction who will discuss the future of the handicapped child; H. N. Cass executive director of the South Dakota Public Health Association, Huron, S. D., and Alice Marshall, Omaha, the executive secretary of the Nebraska Tuberculosis Association. The National Tuberculosis Association is sending a speaker from New York.

There will also be programs of special interest to public health nurses, school teachers, and superintendents and lay workers interested in public health.

CANCER RESEARCH

Announcement has been made from the Westmoreland Field Commission for Cancer Research that cancer is caused by a specific bacteria. Their report is based upon evidence indicating that this organism attacks animals and human beings indiscriminately. Their report further indicates that in certain villages in Westmoreland County, England, no cancer has been seen, whereas in other villages, the inhabitants suffer heavily. They further report that these variations may be seen even in certain streets or houses within a village. This report has been unsubstantiated by investigation of other commissions, but may be the means of opening new avenues of approach to the tremendous problem now occupying so much attention in medical research.

POLK COUNTY TO EMPLOY FULL TIME LAY SECRETARY

An important step in the development of organized medicine was taken Tuesday, January 28, when the Polk County Medical Society, which had previously raised the dues to \$20.00 for that purpose, voted to employ a lay executive secretary. A committee was empowered to make a selection and it is expected that the society will soon have a full time executive. Polk County will then be the smallest medical society in the United States to have an executive secretary.

SPECIAL ARTICLE

CONVALESCENT BLOOD AND SERUM IN THE CONTROL OF MEASLES*

HOWARD A. LANPHER, M.D., M.P.H.**

and

FRED MOORE, M.D., Des Moines Iowa

The use of convalescent serum for the modification and control of measles is a safe and sane procedure, easily performed and will save much loss of life by the prevention of dreaded complications. Use of this material dates from about 30 years ago when it was first used in Germany. It was first used in this country by Park and Zingher in 1916.

The purpose of the administration of convalescent serum should not be a complete passive immunity because such immunity is only temporary, and having been lost within about two weeks, it leaves the child as susceptible as before.

The ideal to be sought is attenuation of an attack rather than complete protection. This allows a mild attack devoid of complications. While it prolongs the incubation period by about 3 days, it shortens the duration of the actual attack. Such a modified attack results in an immunity which is complete for the rest of life. All children known to have been exposed to measles should have the benefit of such attenuation and especially is this true of children under five years of age, since it is in this age-group that bronchopneumonia as a complication is so frequently a cause of death.

Foreign sera from lower animals have been used but results have been disappointing and unsatisfactory, hence the use of human convalescent serum is advisable.

This has led investigators to experiment with parental serum or whole blood on the theory that every parent has had an attack of measles and that such parental serum or blood is, in fact, convalescent serum. The results have been very satisfactory.¹

The following three reasons are advanced for the use of parental serum or whole blood.

1. It is easily and readily obtained.
2. There is less objection on the part of the parents if their own serum or blood is used

rather than material from a member of some other family.

3. The use of parental blood or serum precludes the necessity of a Wasserman test or of a test for sterility if done under proper technique. Furthermore such serum or blood is harmless as to reaction or ill effects.

The method for obtaining parental or other convalescent serum and of its administration follows:

Blood is withdrawn from the most convenient vein of the donor into a large glass syringe and immediately expelled into a 60 cc. glass ampoule, which is capped at either end with a rubber cap. The amount of blood to be drawn is approximately twice the amount of serum desired. The ampoule is then shaken thoroughly to prevent adhesion to the side and set away in a refrigerator for from 12 to 24 hours. At the end of that time the blood clot will have floated clear and the serum may be withdrawn into a suitable sized syringe through the bottom cap without disturbing the clot. The size of the syringe will depend upon the amount of serum desired and the number of patients to be treated. The serum is then injected between the scapulae where there is much loose tissue and therefore little pain upon administration. A very small needle is used. Absorption is very rapid and there is no local or general reaction.

The dose of the serum is proportionate to the age and size of the child and to the time elapsing since the donor has had the measles.

For a partial passive immunity which will allow the child to have a mild attack the following table is suggested. The table is based upon the assumption that the donor has had measles at least five years previous to the time the blood was drawn.

TABLE I.
*Age of Patient and Amount of Serum to be
Injected*

Age	Amt. of Serum
15 yrs.	25 cc.
12 yrs.	22 cc.
9 yrs.	20 cc.
6 yrs.	20 cc.
4 yrs.	12 cc.
3 yrs.	10 cc.
2 yrs.	8 cc.
1 yr.	6 cc.

In using serum from donors three months or less after defervescence and for the purpose of influencing the type of measles so that a modified attack will develop, the dose is 2.5 cc. to 3 cc., injected from the fifth to the tenth day after exposure. These doses are calculated for children

**Iowa State Department of Health, Des Moines, Iowa.

*Editor's Note:—This article was requested for the February Journal because of the timeliness of the subject discussed.

3 years of age. They should be proportionately higher for older children and adults.²

Another method provides for the use of sodium citrate solution.

The blood is withdrawn as above described through a 16-gauge Luer syringe into a 500-cc. bottle containing 20 cc. of a 25 per cent solution of sodium citrate and 0.3 gm. of oxyquinolin sulphate (chinosol) as a preservative. This preparation is an efficient bactericidal agent, does not destroy the red cells and is not irritating when injected intramuscularly. The bottle is placed in the icebox and the cells allowed to settle or they may be centrifuged, and the serum pipetted off. For dosage see table above.³

For those who do not wish to employ these methods it may be stated that good results have been obtained by the use of parental whole blood.⁴ This method also obviates the necessity for Wasserman and sterility tests, always taking into consideration the history of the parent donor. The method of using whole blood is as follows:

Place the donor parallel with the recipient, the recipient being in the supine position. Withdraw the blood from the median basilic vein of the donor. Change needles and inject at once into one of the larger muscles of the recipient. The muscles on the anterior surface of the thigh are usually chosen. When whole blood is used instead of serum, double the amount recommended for serum should be injected.

To obviate the possibility of clotting inside the syringe or needle an appropriate amount of sodium citrate solution may be drawn into the syringe before filling it with the blood. Sterile sodium citrate is a commercial preparation and may be obtained from biologic supply houses.

The ages of 20 patients given parental convalescent whole blood by Buttorff⁴ varied from 3 to 16 years, and the amounts of blood used by him varied from 3 cc. to 12 cc. with an average of 9½ cc. Administration of more than 15 cc. may result in complete passive immunity, a result which is to be avoided.

For best results convalescent blood or serum should be used before the fifth day after exposure.

Whole blood has been used in Des Moines during the present measles season with markedly good results. It was used on four children who had had pneumonia shortly before measles occurred in the family. Mild measles occurred in two of these children but was characterized by relative freedom from respiratory symptoms.

CONCLUSIONS

1. There is some difference in the protective

power of the serum from different individuals. This will explain an occasional failure.

2. To be properly effective the serum or whole blood must be given within the first 3 or 4 days after exposure.

3. The ideal to be sought is attenuation rather than complete immunization.

4. The serum prolongs the incubation period.

5. There is less objection on the part of parents if their own serum or blood is used rather than serum or blood from a member of another family. The use of parental serum or blood usually precludes the necessity of a Wasserman test.

6. Parental or other convalescent serum or blood is harmless as to reactions or ill effects.

7. Parental serum or blood is readily accessible and can be obtained and used by any physician with the use of a simple technique.

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STATE UNIVERSITY PRESENTING POST-GRADUATE COURSES AT WATERLOO AND MASON CITY

Thirty physicians of Black Hawk County have joined the University Extension course in obstetrics and pediatrics, which is being given in Waterloo by professors of the Iowa State Medical College. The course will occupy four hours per week over a period of ten weeks beginning February 6th. This is an intensive study course, limited to thirty men who pledge to be regular in attendance.



Another of these University Extension courses such as fostered by officers of the Iowa State Medical Society, has also been arranged for Cerro Gordo County. The same faculty members will present the same ten weeks course, and enrollment of members is proceeding in Mason City.

CORRECTION

Attention is called to the fact that in the January Journal there was a typographical error in printing the professional card of A. P. Stoner of Des Moines in the Physician's Directory.

In this issue the correction is made to the effect that he is engaged in the practice of general surgery with special attention to the injection treatment of varicose veins and ulcers.

STATE HEALTH COMMISSIONER'S PAGE

 Henry Albert, M. D. 

PREVALENCE OF COMMUNICABLE DISEASES

The most prevalent diseases during the past month have been measles, smallpox, scarlet fever, chickenpox, mumps and whooping cough—in that order.

SCARLET FEVER

Cases of this disease continue to be reported in large numbers. It does not appear to be epidemic in any community but is spread throughout the state. Many cases are so mild that medical advice is not sought. This results in many cases escaping quarantine and thus in the exposure of many susceptible children to the disease.

SMALLPOX

Many communities in Iowa are unprotected by vaccination. The greatest number of cases has been reported from Black Hawk County.

MEASLES EPIDEMIC COMING

The number of cases of measles being reported, together with the fact that there has not been much measles in the state for almost three years, justifies the prediction that we are now entering a "measles" year. It is expected that there will be a further increase during the next three months with the disease appearing in extensive epidemic form. Our public health efforts are directed especially to protecting children under five and more especially under three years of age from exposure since the mortality rate is much higher in the very young than in those of school age. Parental or other convalescent serum or whole blood is of value in attenuating an attack of measles and in preventing serious complications. Many of the public now have heard of the value of such treatment and some of them will no doubt make inquiry concerning it. Attention is called to an article concerning the preparation and use of parental blood or serum appearing elsewhere in this issue of THE JOURNAL.

MUMPS

An increase in the number of cases of mumps

reported is noted with the brunt of the attack coming in Lee County.

NEW BIRTH CERTIFICATE FORM

Booklets containing an entirely new birth certificate form have been sent to the 840 local registrars of Vital Statistics, with instructions to have them distributed among the physicians of their district, by February 1st. They are sent to registrars rather than to physicians directly since only about one-half of the members of the medical profession do obstetrical work. The local registrars have been asked to recall all blank birth certificates, to destroy the old series and to return to the department those which have been issued during the past six months.

PNEUMONIA SEASON IS ON

The pneumonia season is now upon us. More deaths from this disease occur in January, February and March than at any other time. Besides more deaths are caused by pneumonia than by any other specific disease. The number of deaths from pneumonia is exceeded by only three other conditions. These are the so-called degenerative diseases, heart disease, cancer and cerebral hemorrhage. 1714 Iowa deaths from pneumonia were reported in 1928. This is a rate of 70.6 per 100,000. Early attention to colds, coughs and bronchitis will prevent many cases of pneumonia which so often follow in the wake of these conditions. A polyvalent anti-pneumococcic serum has been placed on the market which is effective against Types I and II Pneumococci. These represent about 40% of pneumonia cases.

RULE REQUIRING ABSENCE FROM SCHOOL FOR ONE WEEK FOLLOWING QUARANTINE ABOLISHED

In compliance with a request of the State Board of Health the rules of the State Department pertaining to communicable diseases were modified by striking out the first four lines of Paragraph J, Section 6 of the 1927 edition of the rules.

This portion of the section reads as follows:
"No persons recovering from a quarantinable

disease, and no school children or other persons not known to be immune, who remain in quarantine with a case, may return to school or have similar contact with groups of children until ONE WEEK after the quarantine terminates."

This rule has caused a great deal of confusion and dissatisfaction. It was adopted about five years ago in recognition of the fact that not all persons cease to be carriers of the infective agent at the end of the quarantine period based on an arbitrary time limit, and that the danger is greatest among groups of children. Physicians are urged to cross out the four lines above referred to in their copies of the rules. You are also urged to advise persons released from quarantine to refrain as far as possible from association with children for at least another week.

FUMIGATION FOLLOWING QUARANTINE NO LONGER REQUIRED

The rules of the State Department of Health no longer require fumigation with formaldehyde or any other gaseous disinfectant on the termination of a period of quarantine.

Concurrent disinfection of excretions and discharges during the course of the disease, is, of course, very much more important than terminal disinfection.

Terminal disinfection is best accomplished by employing the means which is most appropriate for the article in question: burning, boiling, airing, sunning and washing with soap and water and a liquid disinfectant. The subject is more fully discussed on pages 8-11 of the last (1927) issue of the Rules and Regulations of the Department. About the third week in February the Department will issue a Health message calling attention to the futility of depending on fumigation and even of using the process except for the destruction of insects or other animal life. This message will be designed for the education of the public.

CONTROL OF FOOT INFECTIONS

So much complaint has been received regarding the prevalence of foot infections of the fungus or ringworm and plantar wart types that the department has issued a special circular designed especially for the guidance of those in charge of swimming pools and gymnasia. A copy of this "Department Policy No. 9" will be mailed to any physician on request.

PUBLIC HEALTH CONFERENCE

A two-day Public Health Conference will be held in Des Moines, April 3 and 4. Further details will be given next month.

ADDITIONAL GIFTS TO THE STATE MEDICAL LIBRARY

Dr. Jeanette Dean-Throckmorton reports the following gifts to the Iowa State Medical Library: Dr. J. W. Tyrrell, Des Moines, gave three old books on Anatomy by Fyfe, which had been used by his great uncle and his father, practicing physicians in Scotland; Dr. C. E. Ruth, Des Moines, gave a rare book on Surgery by Sir Astly Paston Cooper, and 95 additional books; Dr. Ben Budge, Ames, sent 72 books; Dr. W. S. Osborne, Osage, sent 80 books; Dr. T. M. Throckmorton, Chariton, sent 140 books; and Dr. David S. Fairchild, Clinton, donated 620 magazines, as well as 287 books.

MAURICE AND LAURA FALK FOUNDATION

The Pittsburgh philanthropist and capitalist, Maurice Falk, has established as a memorial to Mrs. Falk a philanthropic foundation capitalized at \$10,000,000, to be known as the Maurice and Laura Falk Foundation. The earnings of this foundation will be used in the interests of public welfare, and will begin operating in 1931.

DISPLAY BY ANATOMISTS OF THE CHICAGO CENTURY OF PROGRESS

The National Association of Anatomists has selected seven professors from representative universities (Chicago, Minnesota, Illinois, Michigan, Northwestern, Cornell, and Johns Hopkins) to develop ways and means for presenting the growth and development of anatomical knowledge during the past one hundred years. This presentation must be in graphical form, and suitable for lay appreciation, since it is proposed that such a demonstration will be used at the Chicago Century of Progress celebration in 1933.

THE NEW YORK STATE PSYCHIATRIC INSTITUTE AND HOSPITAL

On December 3, the newest unit of the New York Medical Center at Broadway and West 168th Street was dedicated. This unit, known as the New York State Psychiatric Institute and Hospital and completed at a cost of \$2,000,000, is probably unique in structure and equipment in both America and Europe. The hospital will be used for intensive scientific research as to the causes and prevention and cure of mental diseases, and will provide quarters for resident and out-patient work as well as providing offices for the social service work required for this scientific investigation. This institute and hospital is an outgrowth of the Psychiatric Institute which has been operating in New York City for the past twenty-five years under the control of the State Department of Mental Diseases.

The JOURNAL of the Iowa State Medical Society

ISSUED MONTHLY

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SMALLPOX IN IOWA

During the disagreeable winter months, when variations in temperature and humidity are common, diseases of the respiratory system are very prevalent. During these same months, and probably dependent upon the increased incidence of respiratory diseases, contagious diseases are also more prevalent. Our State Health Commissioner in January has reported a relatively large number of cases of measles, smallpox, and scarlet fever, diseases which are for the most part seasonal and cyclic. Much praise is to be accorded the health organizations in securing a marked reduction in the incidence of diphtheria as reflected in the January report of only fifteen cases during the month. The low morbidity rate for diphtheria, typhoid fever, and tuberculosis are outstanding examples of what may be accomplished by intensive campaigning in preventive medicine.

Surprising and disgraceful as it is that, while public consciousness has been awakened to the tragedies of the three diseases mentioned, at the same time an apathy has developed regarding the entirely preventable disease of smallpox. To most of us not engaged in epidemiological work, such a prevalence of smallpox as is reported in Iowa for January is hardly conceivable. One hundred and twenty-one cases were included in the January 9th report, cases having occurred in nine different counties of the state. That such a report is possible is in itself a condemnation of our activities as physicians, and certainly reflects an indifference towards a disease which, because

of accurately enforced measures of prevention, has in many parts of this country become a clinical rarity. It is the duty of every physician, whether associated with an organized body having to do with public health or not, to constantly keep before his patients the need, both from a personal and a public health standpoint, of disease prevention.

Let us not forget that, while vaccination is highly efficient in preventing smallpox, the immunity conferred by this procedure may not last a lifetime, and even among those who have been vaccinated, re-vaccination may be required at certain intervals. Since a "take" will only occur in those individuals of low resistance to smallpox, it is not only sensible, but advisable, to re-vaccinate all persons who have not had a successful "take" within a period of three years when smallpox is prevalent. Even in the absence of active cases of smallpox, it is well once in ten years to attempt vaccination. Of course, physicians attending cases will vaccinate themselves immediately after exposure to a case unless they are reasonably certain, as the result of a vaccination within a year, that they are not susceptible to the disease.

PREVENTABLE BLINDNESS

At a recent meeting of the International Association for the Prevention of Blindness held at The Hague, a report was made by a committee representing the international League of Red Cross Societies covering a two year period of study. As a result of their investigation, they have determined that there are 2,500,000 blind persons in the world. They accept as a standard definition for blindness "One who is so blind as to be unable to perform any work for which eyesight is essential." They further determined that the leading cause of blindness in all countries is trachoma.

Their findings would emphasize the fact that in America, the leading cause in the production of blindness is industrial accidents. With the development of inventions, and the consequent rapid expansion in manufacture and transportation, a large increase of the blind population in the United States has been the result of the hazards of industrial life. In this country, they report that 15% of the blind are so as the result of industrial accidents. In France, Belgium, and Germany, they call attention to the frequency of blindness caused from war injuries, whereas in Egypt, along the borders of the Mediterranean Sea, in Palestine, China, the Balkan States, India, and some sections of Brazil, trachoma is of particu-

lar significance. In the United States trachoma has been reported in the Appalachian and Ozark Mountains, and among the American Indians.

In their report, they further stress the prevalence of blindness resulting from syphilis, gonorrhea, ophthalmia neonatorum and smallpox. They call attention to the fact that, during the past twenty years as a result of voluntary or compulsory use of preventive measures, ophthalmia neonatorum has been reduced 68% in the United States. In this country, as well as in western Europe, small pox has become almost negligible as a cause of blindness, although in India, smallpox still presents a very serious situation. Conservation of sight becomes a very real economic problem when we consider that the industries of this country are now paying approximately \$10,000,000 a year as compensation to workmen who have been totally or partially blinded while at work. This is a direct loss. The indirect loss from this same cause may conservatively be estimated as at four times this figure.

Since blindness is for the most part preventable the work of the International Association for the Prevention of Blindness, as well as the subsidiary and component societies, is indeed commendable. Community health is largely a responsibility of the medical practitioners of the community, and for this reason, it behooves every practitioner to not only realize the problems concerned in this subject, but also to be familiar with the methods of prevention which must be employed if this very serious type of impairment is to be lessened. Physicians can do much towards furthering such a campaign by inviting discussions both in professional and lay groups of this subject. Our own National Society for the Prevention of Blindness, with offices at 370 Seventh Avenue, New York City, will be glad to assist any physician or group desiring more complete information on any phase of this very important subject.

PSITTACOSIS OF PARROT DISEASE

During the past few weeks at least two deaths have occurred from this disease, and a dozen or fifteen additional cases reported from Maryland, New York, Rhode Island, Pennsylvania, and Ohio. To our knowledge there have been no cases reported in Iowa. This is not a new disease, since cases have been reported and recognized in Continental Europe for as many as fifty years. In 1892 an outbreak was reported in Paris. In 1917, the first two cases to be reported in this country developed in Wilkesbarre, Pennsylvania, and Binghamton, New York, respectively.

It has been suggested that the disease is caused by a bacterium which has been designated as the bacillus psittacosis. However, this organism has not been found with any constancy in the cases reported. The causative relationship between parrot fever in freshly imported parrots and psittacosis in man seems established, since there is but one case reported in which the individual suffering the disease has not come in direct contact with a parrot suffering the disease. In the one case alluded to, close contact was not established, although this individual had resided in the same house in which a parrot was ill with the disease.

Clinically, the disease manifests itself in man by symptoms resembling an influenzal pneumonia, but differing from this disease in a relatively low respiratory rate, an almost total absence of sputum, an absence of leukocytosis or an actual leukopenia, and an absence of cyanosis at any stage of the disease. There appears to be no danger of an infection occurring except in those cases where the parrot has been freshly imported.

AMERICAN COLLEGE OF SURGEONS— IOWA SECTION

On January 30th and 31st the Iowa section of the American College of Surgeons met in Des Moines. Assistant Directors, Dr. Bowman C. Crowell and Dr. Malcomb T. MacEachern from the central office, Dr. Paul B. Magnuson, Assistant Professor of Surgery, Northwestern University Medical School, Dr. Alton Ochsner, Professor of Surgery, Tulane University, and Mr. Robert Jolly, Superintendent of the Baptist Hospital at Houston, Texas, were the out-of-state speakers who took part in the program. Dr. Henry S. Houghton, Dean of the College of Medicine, the University of Iowa, Dr. Gordon F. Harkness of Davenport, and Dr. Thomas A. Burcham and Dr. Oliver J. Fay of Des Moines, were those from the state who participated in the scientific meeting.

Dr. MacEachern and Mr. Jolly conducted meetings pertaining to hospital affairs in the Broadlawns Tuberculosis and Mercy Hospitals. A large hospital meeting was held the afternoon of the first day. One of the features was the model staff meeting put on by the members of the staff of Broadlawns General Hospital. The good resulting from these hospital meetings cannot be overestimated. The energy displayed by Dr. MacEachern and Mr. Jolly and the desire they have to aid, in every manner, those interested in hospital work, was greatly appreciated. They have traveled throughout the United States and have become familiar with hospital conditions. This

has made it possible for them to render invaluable service in aiding in the solution of difficulties arising in the hospitals of different localities.

Dr. Alton Ochsner's address on Intra-peritoneal Complications in Acute Appendicitis was referred to, by many of those present, as a masterpiece.

The Clinical Address on Fractures, by Dr. Paul B. Magnuson, was excellent. As a member of the Fracture Committee of the American College of Surgeons he indicated a method of handling fractures that might well be copied in all of our hospitals. As a member of the staff of the hospital with which he is associated he has been selected as Consultant. He serves without remuneration. The cases are presented in the staff meetings with the records and roentgrams and are thoroughly discussed. This is an index to the manner in which every staff meeting should be held. It shows a friendliness and a cooperation that cannot fail to render the best service to the patient in such a hospital. The surgeon freely discusses the condition with the patient and, when permanent disability must of necessity result, the patient is forewarned; he is also advised to call in any reputable surgeon he may wish to further insure the best possible result. If the patient is to have an imperfect anatomical result and a good functional result this is explained to him so that, following his departure from the hospital, any criticism of the final outcome is practically nil.

When a hospital has a staff which cooperates in this manner, not only in fractures but also in the other branches of surgery, the trend will surely be toward the very highest type of surgery.

Dean Houghton handled his subject, Medical Practice—The Changing Order, in a pleasing and instructive manner. He left those present with much food for thought.

The other papers on the program were well prepared and held the attention of the audience throughout the afternoon.

A banquet was held the evening of the 30th in the ballroom of the Hotel Fort Des Moines. After this several reels of talking motion pictures, pertaining to medical subjects, were beautifully presented.

On the evening of the 31st a Community Health meeting was held at the Hoyt Sherman Place Auditorium with Dr. Ralph H. Parker, of Des Moines, presiding. Mr. J. W. Studebaker, Des Moines, Superintendent of Schools, opened the meeting with the address of welcome. Dr. Crowell presented an instructive motion picture. Dr. Magnuson and Dr. Ochsner spoke on scientific subjects while Dr. MacEachern and Mr. Jolly gave interesting talks on what the public should know about hospitals. Mr. Jolly, after pointing

out that statistics indicated that one out of every ten in the audience would be in a hospital in the course of a year, urged every one to "get behind" the deserving hospitals and to see to it that they received the necessary financial aid, so that the work of caring for the sick may be carried on in the most efficient manner.

Members of the profession of the city joined the local members of the college most heartily in putting on the clinics in the Methodist, Mercy, and Lutheran Hospitals.

UNITED STATES CIVIL SERVICE EXAMINATIONS

The United States Civil Service Commission announces the following open competitive examinations:

Occupational Therapy Aide (Arts and Crafts).

Occupational Therapy Aide (Trades and Industries).

Occupational Therapy Pupil Aide (Trades and Industries).

Applications for the above-named positions must be on file with the Civil Service Commission at Washington, D. C., not later than March 12.

The examinations are to fill vacancies in hospitals of the United States Veterans' Bureau throughout the country.

Entrance salaries range from \$1,800 to \$2,100 a year for aides, and from \$1,440 to \$1,740 a year for pupil aides. Higher salaried positions are filled through promotion.

Full information may be obtained from the United States Civil Service Commission, Washington, D. C., or from the secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city.

Medical Officer, Associate Medical Officer, Assistant Medical Officer.

Applications for the above-named positions will be rated as received by the Civil Service Commission at Washington, D. C., until June 30.

The examinations are to fill vacancies in hospitals of the Veterans' Bureau, the Public Health Service, the Indian Service, and in other establishments of the Federal classified service throughout the United States.

Competitors will not be required to report for examination at any place, but will be rated on their education, training, and experience.

Full information may be obtained from the United States Civil Service Commission at Washington, D. C., or the Secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city.

Vienna Clinical Instruction

N. BOYD ANDERSON, M.D., Des Moines

It is only with reticence that I undertake to discuss the instruction and methods in some of the Vienna clinics. To do so in the best light would be to compare the Teutonic, English, and American manner, and this I do not feel competent to do, as my time here has been spent to enrich my own knowledge of surgical subjects. The comments which I give will be of considerable latitude, and therefore I must ask pardon for the personal equation when reference to it is made.

Throughout the various Viennese clinics (and the same holds true for those in Munich and Berlin in Germany) the tendency has been to teach medicine to students by the lecture method. These lectures are minutely complete as to detail, and are based upon the fundamental principles of the subject at hand. Von Eiselsbergs, first Surgical Clinic, Hochenegg, second Surgical Clinic, Ortner's Medical Clinic of Vienna, and De Quervain's Surgical Clinic of Berne, are fine examples. The latter I shall discuss at a future date. In these clinics the student does not have access to the wards for examination or bedside observation of therapy. However, after graduation they all enter a hospital and devote years to observation and applying the principles laid down to them in former lectures.

The post-graduate work is conducted along an entirely different line, regardless of whether the work is given in English or German. All now is bedside instruction in small groups, giving a chance for a close personal contact between professor and student. Free access is given to wards for observation. This is interspersed with lectures dealing with the subject at hand, as the clinical material is so abundant; there is no difficulty in having several stages, or degrees of pathology of the diseased process. Several types of a given condition may be demonstrated and examined at the same time. As a fair example, I recall a lecture on hernia by Dozent Schonbauer, with which he was able to demonstrate the following hernias: indirect and direct inguinal; femoral; umbilical; umbilical with omental incarceration; umbilical with bowel incarceration and fistula resulting; epigastric; post-operative; and Littre's.

The statement has long been prevalent that the

continental methods of therapeutics, whether medical or surgical, are radical. We must grant the statement, but at the same time accept a modification to it, in that their radicalism is based upon a knowledge of pathology which we do not possess. Their entire procedure of treatment is governed by the ever-changing morbid condition of the diseased process. The institute of pathology has a complete set of records of post-mortem examinations, since a Federal Charter was granted to the Hospital by Queen Marie Theresa, about two hundred years ago. This charter stipulated that all patients whose deaths occurred in the Allgemeines Krankenhaus must be subjected to a post-mortem examination. One cannot help but wonder who was the guiding influence which prompted this Queen to grant such a charter. She was a devout Catholic, and post-mortem work was under the ban of the Holy See. The value of the charter cannot be estimated, but it was the means of giving us Rokstanski, Skoda, Billroth, and a host of others whose legacy to the profession is not denied. Naturally from its position, the Allgemeines Krankenhaus is the center of attraction for all medical students. However, since the war, one can obtain excellent work in many of the other hospitals. This has been brought about by post-war depression, and the need of remuneration by the professor in charge. Prior to the war, many of these men had a private practice of considerable extent, and simply used the hospital indigent service as a means of study and improvement. The war and the socialistic regime of the city government has changed the picture, and it now becomes necessary to teach for a livelihood. Men with a reputation such as Richard Bauer on Liver and Spleen at Wiedener Krankenhaus; Neuman on Chest at Wilhemska, Werner at Elizabeth-spital on Gynecology; Finestere on Stomach Surgery at Franz Joseph Ambulatorium, and many others are available.

It is rather a pathetic situation to observe. These men, well beyond the middle of life, who once possessed the means for a joyous life until the end, now forced to give their ability and service for a mere pittance. War is war, and the struggle still exists where it was least expected in the beginning.

The County Contract and Clinic

As Operated in Scott County

JOHN I. MARKER, M.D., Davenport, Iowa

Premier MacDonald is reported to have said, with reference to the Naval Disarmament Conference, that it is too early to wave flags as yet, and so, we feel about the Scott County Medical Clinic at the present time. This description is written for the information of our methods of starting the Clinic, and not to show how much has been accomplished. We have gone about organizing with the knowledge that changes would probably be necessary, and in the spirit of co-operation that is necessary to meet those changes, we have confidence. Scott County Medical Society can look to their cooperative work as an effort to deliver adequate scientific medical service to the indigent of the County, and to place their Society in the position of influence and power, which it deserves in every community.

From the standpoint of the public, it has seemed desirable for some time that such a step be taken as has been started here. In this day of specialization, there is more work of a special nature to be done than can be contracted for by any one physician in the county. Cooperation of a number of men shortens the period of illness and consequent dependency due to disability, and lessens drug and hospital bills. It gives the poor of the county not just the service of one physician, but the combined judgment of the individual practitioners of the community. Thus it seemed desirable that the doctors as a business organization take over the entire responsibility for delivering medical care of all kinds to the part of the population dependent upon public charity.

The plan appealed to the Board of Supervisors as advisable from the standpoint of efficiency in expenditure and certainty of cost. Medical service to the poor in a county of 70,000, demands the application of much time and judgment as well as the expenditure of money. We in Scott county are fortunate in having a Board of Supervisors in whom the thought has always been first and foremost, the securing of a highly efficient service, and secondly to have it done at a reasonable cost to the people they represent. This I believe is a different attitude from that to be found in some other localities where the cheapest is good enough and still costs too much. Because of this desire for an efficient all inclusive service

our Board of Supervisors were willing and anxious to deal with the entire medical profession. It is distinctly to the credit of their foresight that the idea was sold to them, before it was to the medical profession as a body. It was even necessary that laws be changed, permitting them to contract for the work to competent men at a fair bid rather than forcing them to accept the lowest bid of any medical licensee, whether he was able to fulfill his promise or not. This change was made, which change was essential in a county of this size where all medical licensees are not eligible to membership in the county society, and when such men are long on promises and short on delivery they can underbid any fair price.

COOPERATION

The practice of medicine has always been an individual matter up to the beginning of this century. Since then there has been more and more a feeling of dependency of one practitioner on another. We have been highly trained as individuals, and we hold to that manner of acting in all our dealings. This cooperative movement was no differently accepted than any other would have been by an equal number of physicians. Fifty practitioners cannot act in accord from one motive, but they can find that different motives can make them act as one. To some, the words of the Secretary of the American Medical Association, Dr. Olin West, were the activating motive: "The one great outstanding problem before the medical profession today is that involved in the delivery of adequate scientific medical service to all the people, rich and poor, at a cost which can be reasonably met by them in their respective stations of life." Others of our profession saw the need of the medical men taking hold and controlling the dispensing of free or semi-free medical service in the community, while we can control it and before we reached such a problem as the profession in Chicago and elsewhere had on their hands in the past. To a number of the men there was the appeal of the opportunity to work together with other men on cases where jealousies would not be encouraged, and where we all would receive the inspiration and tempering of judgment which comes from professional contacts. But whatever the motives in our minds, fifty members of the Scott County Medical Society have signi-

fied their intention of working together in a contract with the County Supervisors, and have morally bound themselves to both give and take to the extent that our work be a success.

INCORPORATION

It was necessary for the county medical society to incorporate in order that we could do business as a group, and not necessitate the making of a contract by any one individual. In November, 1929, the Scott County Medical Society voted to incorporate, and elected a board of nine trustees, who formed the Scott County Medical Society, Inc., and voted membership to all members of the society. The business affairs of this incorporated society are the function of the Board of Trustees. This board elected for three year terms has its own president, vice-president, and secretary-treasurer, and at present the business dealings of the corporation are kept separate from the functions of the unincorporated society, such as collecting dues, electing members, and providing programs.

THE CONTRACT

Our contract with the Board of Supervisors provides that we "furnish all medical and surgical care and treatment, as may be required during the calendar year 1930 for County patients of said Scott County, Iowa, arising within the City of Davenport, the City of Bettendorf, and/or Davenport Township, in said County." The balance of the County, where there is comparatively little poverty is to be cared for on order of the supervisors or their agents as in the past. The contract was made to cover all service of any kind usually expected of physicians, and the only exceptions were in the matter of certain expenditures for drugs, which might not be under the control of the physicians. For that reason charges for surgical appliances, trusses and serums, toxins and antitoxins are paid by the Board of Supervisors. All other treatments, drugs, x-rays, and other laboratory work is paid for by the county society, unless the patient becomes hospitalized when the Supervisors pay hospital charges.

The usual county officers and agents have the privilege of calling a physician or ordering medical work for any county patient. A county patient to be considered eligible for free medical service should be a poor person, who because of ill health, misfortune or other cause is unable to supply himself with the necessities of life. The mere inability to pay ordinary medical charges alone should not make them county patients in the usual acceptance of the term, and entrance to free medical service, if just, should

be by other means than certification by the Board of Supervisors or their agents. This phase of our work will be discussed more fully. For our service in caring for the county patients, the Board of Supervisors will pay \$12,600 for the year, payable in monthly installments of \$1050 per month, beginning February 1st, 1930.

THE PLAN

In order that we be enabled to carry out the terms of this contract in an acceptable manner to our employers and the public, and with satisfaction to ourselves, it was necessary that we provide a working plan. This plan is as follows: A daily clinic of one to two hours is held at the Visiting Nurses Cottage, which is referred to as the clinic. A system of referring patients for special work and consultation, and a system of assigning patients in the hospital for care. House visits and calls are made by a physician, who is paid a stated salary for this work. The work of the venereal disease clinic, which was established in war time is done by a physician hired by the society. This work involves considerable time and bookkeeping, and is also carried on at the clinic. Quarantine work in Davenport on smallpox cases was paid for by the County Supervisors, and this work was also taken over and paid for by the medical society to the physician member of the Board of Health, who is designated by law to perform this work. We hire a graduate nurse to be present at all clinics, and assist the men in dispensing, keeping records, etc. She also assists the secretary in assigning cases, keeping financial and other records, and in collecting social data of clinic cases not county charges.

THE CLINIC

The clinic is maintained by volunteer workers, who have a regular schedule for their hours spent there. These men of whom there are twenty, are given first preference in assignment of cases to be cared for in the local hospitals. This was done because it was felt, that as the giving of time regularly to the conducting of a clinic was the biggest sacrifice made, the men making the sacrifice should have the opportunity of directing the care of hospital patients, where the experience could be made worth while. All members of the Scott County Medical Society are welcome to visit any county patient, and note their observations on the hospital record, but the actual directing of the care of the patient is under one man to whom they are assigned. The Consulting Staff of whom there are thirty men is made up of those men who will be willing to take a case that has been worked up in the clinic, and make special ex-

Three Iowa Societies Tackle Health Center Problem

There is a growing sentiment among Iowa physicians that public and charitable health activities need more professional attention and direction. This feeling is shared by most lay health and social workers.

This proposal is based upon two fundamentally sound principles: First, that a safe and constructive lay health program can be defined and mapped out only with the sympathetic counsel and the direction of the medical profession as such. Second, that the success in practically everyone of the lay health activities is based upon free services rendered by physicians; and that they therefore should determine the conditions under which such services are to be given, rather than to have them determined by the non-professional recipients of this free medical service.

Within the past sixty days three of the largest county medical societies have taken definite forward steps along these lines. The Scott County Medical Society in connection with a county contract for care of indigent sick has also made definite contractual provisions for operating the Davenport dispensary-clinic. This method and how the society is paid for its work is outlined elsewhere in this issue.

Woodbury and Polk counties are likewise coordinating health and charitable activities under proper leadership. In Sioux City a program similar to the one in Davenport has been undertaken, while in Polk County the movement consisted of the passing of the following resolution:

"That no member of the Polk County Medical Society shall contribute free professional services to any hospital, health center, clinic, or other health or welfare project, unless both the institution and its activities have been approved by the society."

The Woodbury County Medical Society seems to have found a solution of the clinic-dispensary problem which has been an issue there during the past few months, through the adoption of a resolution which sets up an entirely new organization. It is to be a joint undertaking but with the county medical society in its proper and rightful place, as is clearly indicated in the resolution adopted at a recent meeting of the society as follows:

"The Woodbury County Medical Society being assembled in regular session to consider means whereby we may aid in providing for the needs of our city and county in the matter of taking care of its indigent sick and injured as well as those of other towns, cities, states and countries, who may temporarily be within our city and county, with the efficiency and justice to all concerned, do hereby resolve that we will gladly cooperate with any Civic Organization that now exists or may hereafter be organized, which shall have for its object, and sole object, that of aiding and furthering the aforementioned activities also with the City Board of Health and County Board of Supervisors in carrying out these objects in the amalgamation of the foregoing bodies interested in contemplated charitable activities, it is understood and agreed that the same shall occur through a Board of Control, consisting of three (3) members selected by the Civic Organization, three (3) by the Woodbury County Medical Society, one (1) by the Board of Supervisors, one (1) by the Board of Health, and one (1) by the Board of Education of Sioux City, Iowa.

Said Board of Control shall have the management of said contemplated activities of said health center, with this restriction, however, that there shall be two (2) committees appointed. The first one as the committee on indigency, and the second as that as health center management, which committee shall be composed as follows, and have the following powers. Furthermore, that we as a society will annually establish a fee for the various types of work rendered by the profession to said health center, which shall be defrayed out of the funds collected from the Civic Organization or money received from the Board of Supervisors for cases properly falling within its jurisdiction and obligation.

"Furthermore, that all members of the Woodbury County Medical Society shall be entitled to have services in said health center prorogated as to time and occurring according to their election, but all shall receive the same compensation based upon 60% of usual fee charged for like services in private practice. Furthermore, none shall be recommended to service unless the same is agreeable to them."

SOCIETY PROCEEDINGS

Audubon County Annual Meeting

At the regular annual meeting of the Audubon County Medical Society held in Audubon, December 20, 1929, the following officers for 1930 were elected: Dr. John Riley, Exira, president; Dr. L. E. Jensen, Audubon, vice-president, and Dr. J. M. Fulton, Audubon, re-elected secretary and treasurer. Dr. R. F.

Childs of Audubon was named delegate to the state meeting, and Dr. R. A. Jacobson of Exira, alternate.

Cerro Gordo County

The Cerro Gordo County Medical Society held its regular meeting Tuesday, January 14, 1930 at the

Hotel Hanford. Dinner was served at six-thirty to the thirty members and guests present.

The program consisted of talks on the county contract. Dr. J. C. Shrader of Fort Dodge, secretary of the Webster County Medical Society, presented their experience with the contract. Dr. Channing G. Smith from Granger, Chairman of the Council of the Iowa State Medical Society, gave us strong support for the county contract. Mr. Vernon Blank, Managing Director of the Iowa State Medical Society, urged the adoption of some form of county contract to obtain money for running the society, and brought out the Code of Iowa regarding the care of the county poor.

We are indeed grateful to these men who are spending their time and their support in putting across the county contract. Definite progress was made, and we hope in the near future to have a county contract in Cerro Gordo County.

T. E. Davidson, M.D., Secy.

Chickasaw County Annual Meeting

The Chickasaw County Medical Society met on Wednesday, December 18, in New Hampton, for an afternoon program at which time the Canti Cancer Film was shown. This was followed by a talk on Cancer by A. U. Desjardins, M.D., of Rochester, Minnesota. After a delicious banquet at the Miller Hotel, officers for the year were elected. The officers of 1929 were unanimously re-elected. They are: Dr. Paul E. Stuart, Nashua, president; Dr. J. M. Kerwick, Lawler, vice-president; and Dr. Paul E. Gardner, New Hampton, secretary.

Paul E. Gardner, M.D., Secy.

Dallas-Guthrie Society

Thursday, January 16, members of the Dallas-Guthrie County Medical Society met at Adel and listened to the following program: President's Address, H. W. Smith, M.D., Woodward; Obstetrics, R. E. Doidge, M.D., Perry; Diagnosis of Upper Abdominal Lesions, J. T. Strawn, M.D., Des Moines. Officers of the society besides President Smith are: Dr. J. A. Pringle, Bagley, vice-president; Dr. S. J. Brown, Panora, secretary-treasurer; Dr. E. L. Bower, Guthrie Center, delegate; Dr. W. R. Van Duzen, Casey, alternate. The Board of Censors is composed of Dr. C. O. Sones, Panora, Dr. George Elvidge, Perry, and Dr. W. R. Van Duzen, Casey.

Des Moines County

Three physicians from Quincy, Illinois, furnished the following program for the Des Moines County Medical Society meeting, Tuesday evening, January 14: Agranulocytosis, Warren F. Pearce, M.D., Recurrent Common Head Colds, Walter Stevenson, M. D., and Spinal Anaesthesia, John A. Koch, M.D.

Henry County

At a meeting of the Henry County Medical So-

ciety which was held Friday, January 24, at the Harlan Hotel in Mt. Pleasant, Harold Swanberg, M.D., of Quincy, Illinois, addressed the members on The Use of Radium in the Treatment of Disease and illustrated his talk with lantern slides.

Johnson County

The Johnson County Medical Society met Wednesday, January 8, for a six-thirty dinner at the American Legion Building. The following program was presented: Tularemia, E. J. Anthony, M.D., discussion opened by A. V. Hardy, M.D.; Jaundice in Relation to Surgical Diagnosis, C. J. Rowan, M.D., discussion opened by F. J. Rohner, M.D.

Linn County

Verne C. Hunt, M.D., of the Mayo Clinic, Rochester, furnished the evening program for the Linn County Medical Society Thursday, January 16, speaking upon the subject of Renal Tuberculosis.

Marshall County

Tuesday, January 6, the Marshall County Medical Society met for its regular monthly meeting and was addressed by M. U. Chesire, M.D., of Marshalltown on Wounds in the Abdomen. Dr. Chesire illustrated his talk by referring to cases within his own experience.

Polk County

The Polk County Medical Society held its regular meeting in the Oak Room at the Fort Des Moines Hotel, Tuesday, January 28. After a six-thirty dinner the following program was presented: Present Status of the Prevention of Measles, Fred Moore, M.D., and Surgery in Diabetes, E. B. Winnett, M.D. The Society voted to employ a full time executive secretary; and also passed the following resolution:

"That no member of the Polk County Medical Society shall contribute free professional services to any hospital, health center, clinic or other health or welfare project, unless both the institution and its activities have been approved by the society."

Scott County

Tuesday evening, January 7, the regular monthly meeting of the Scott County Medical Society was held at the Davenport Chamber of Commerce and D. C. Steelsmith, M.D., of Des Moines gave the address of the evening on the County Health Unit.

Washington County

The members of the Washington County Medical Society met in regular session Tuesday, January 7, at the Nurses' Home. Professor E. D. Plass of the State University was the speaker and presented the subject of Eclampsia, illustrating his talk with a motion picture.

(Continued on page 101)

PERSONAL MENTION

Drs. F. E. Sampson, H. A. Childs, and Carl Sampson addressed the Creston Rotary Club Monday evening, January 27 on the causes of blindness and deafness and the methods taken by the state to educate children who suffer from either handicap.

Dr. William M. Walsh, formerly of Boston, Massachusetts, has recently joined the staff of the Colfax Sanitarium, where he will have charge of the laboratory and electro-therapeutics.

Dr. T. J. Dorsey was elected president of St. Joseph's Mercy Hospital staff at the annual meeting held in Fort Dodge Monday, January 6.

Dr. J. C. Mooney of Parkersburg is establishing a branch office at Aplington, Iowa, for the accommodation of his patients there.

Dr. B. L. Basinger, formerly of Blakesburg, has definitely decided to locate in Goldfield, where he will continue in the practice of medicine and surgery.

Dr. F. L. Nelson, Ottumwa, addressed the members of the Business Men's Hygeia Club and their wives, Thursday, January 16, outlining the history of medicine from primitive times down to the present day.

Dr. John I. Marker of Davenport was elected vice-president of the Scott County Tuberculosis Association at a recent meeting of that organization held in Davenport.

Dr. M. H. Lynch of Atlantic has received word that he has been named surgeon for the Rock Island railroad to assist Drs. C. L. Campbell and W. S. Greenleaf, who have been surgeons for the road for some time.

Dr. Madeline Donnelly of Mason City is returning to her home town to begin her career as a practicing physician. Dr. Donnelly is a graduate of the State University College of Medicine and served her first year of internship in Iowa City. Her second year was spent in Detroit, and now she is opening her office in Mason City.

Drs. B. Raymond Weston, J. E. Marek, and E. L. Wurtzer were named president, vice-president and secretary respectively of the Mercy Hospital staff at a meeting held in Mason City, Monday, January 20th.

Dr. Orlo E. Coakley of Creston, who for the past two months has been critically ill, has sufficiently recovered to observe his office hours again. Dr. Coakley's illness was caused by the recurrence of an ailment resulting from an injury received in an automobile accident more than a year ago.

Dr. John L. Bubbles is another new physician who is beginning his practice in Iowa. He is coming from the Indianapolis City Hospital to Osceola where he will be associated with the Osceola Hospital, practicing surgery and internal medicine.

Drs. George H. Steinle, E. I. Woodbury, and Horace Peoples, all of Burlington, were elected president, vice-president and secretary-treasurer, respectively of the Mercy Hospital staff at the annual meeting of the staff in Burlington, Friday, January 24th.

CORRESPONDENCE

January 30, 1930.

Dr. R. R. Simmons,
Bankers Trust Bldg.,
Des Moines, Iowa.

Dear Doctor Simmons:

I have received your letter and the January number of the Journal, which were welcome. Speaking of the Journal first I have to say, that it is very attractive in appearance, and as far as the influence of the Journal goes, it ought to add materially in increasing membership. Dr. Throckmorton writes some interesting facts, that in 1916 there were 2200 members and now 2410. It appears that at the same period there were 4500 physicians in the state and now 3000. The falling off of 1500 doctors is not a question for the Journal and the officers of the State Medical Society, but a question of economics. It is apparent that the policies of the State Medical Society are sound, as shown by a very marked increase in the membership of the State Society. The question of economics is a very complex one, altogether too much for me.

An agricultural state having no large cities, but many small ones, accounts for the considerable falling off in the number of physicians. That the change in the economic conditions of the state very materially affects the medical profession is apparent to the older men in the profession, but is not well understood. To you and Mr. Blank the problems are not so difficult because you have no traditions of the past to create conditions of uncertainty. Questions of business change are affecting the best minds, of politics, of government, of devotion to personal interest, and of many things which trouble the older men. I think again that it is fortunate that the Iowa State Medical Society has fallen into the hands of men who are able to begin without the handicap of the past. I feel grateful to you for your kind wishes. I hope I may be able to assist you in establishing a connection between the past, the present and the future.

Yours truly,

D. S. Fairchild.



VICTOR CLARENCE VAUGHAN
(1851—1929)

Victor Clarence Vaughan, M.S., Ph.D., M.D., L.L.D., born in Randolph County, Missouri, October 27, 1851, died November 21, 1929—a member of the faculty of the University of Michigan since 1876 and Dean of the University of Michigan Medical school for thirty years—a physician in active practice for twenty years—a teacher of chemistry, hygiene and bacteriology who in 1889 founded the first laboratory in this country which offered systematic teaching of bacteriology to physicians and students—an educator of international fame who did much to advance the standards of medical education in this country—an administrator who was conspicuous for his broadmindedness and justness—a soldier in two wars; in the Spanish American War where, as a member of a commission he did heroic work in the investigation of typhoid and yellow fever; in the World War where he served on the board in charge of communicable diseases in the cantonments for which service he received the D.S.O. and was decorated with the French Legion of Honor—an author of many works on chemistry, bacteriology and toxicology as well as first editor of *Hygeia*—recognized as a great leader, a constructive thinker and a broad idealist—beloved by all his students—respected and honored by his colleagues—above all things a man—upright, honest and sincere—who left an indelible imprint on the minds of all those who came in contact with him.

—Prepared by L. K. Meredith, M.D.

OBITUARIES

Langworthy, Dr. Mitchell, formerly of Dubuque, Iowa, died October 8, 1929 in Spokane, Washington, from gun-shot wounds inflicted by a maniac. Dr. Langworthy, age 38, will be remembered in Iowa as a graduate of the Medical Department of the State University of Iowa. He was one of the young orthopedic surgeons who early joined the British Orthopedic Corps abroad in France during the World War, and later was transferred to the American Orthopedic Unit. In coming back to this country, he was associated with Dr. Henry G. Langworthy, Dubuque, Iowa, for a short time, but later moved to Spokane, Washington to specialize in orthopedics. At his death he was chief surgeon for the Shriner's Hospital for Crippled Children. As a memorial to Dr. Langworthy, the Spokane County Medical Society and El Katif Shrine will raise an endowment fund which will take the form of a library and educational fund for crippled children.

Dean Henry Munson, Iowa City, died January 6, at the age of ninety-four; graduated in 1861 from the Columbia University College of Physicians and Surgeons of New York. At the time of his death he was a life member of the Johnson County and Iowa State Medical Societies.

Dr. W. J. Kirkpatrick

Dr. W. J. Kirkpatrick was born in Toronto, Canada in 1862. When he was but a child the family moved to New Richmond, Indiana. Following his graduation in 1888 from the College of Physicians and Surgeons at Keokuk, Iowa, he located in Mt. Sterling. From there he went to Plano and from there in 1895 he went to Farmington where he practiced until his death, December 5, 1929. He is survived by his widow, one son, John, and one daughter, Mrs. D. A. Hunt, all of Farmington.

Dr. Samuel W. Clark

Dr. Samuel W. Clark passed away on December 19, 1929, as the result of pneumonia and facial erysipelas. He was the oldest practitioner in Mahaska County. Immediately following his graduation from the State University of Iowa College of Medicine in 1886, Dr. Clark came to Oskaloosa and practiced up to the time of his death. His son, George H. Clark, was associated with him in practice. He was greatly beloved by his fellow practitioners and by the public in general.

L. A. Rodgers, M.D., President,
Mahaska County Medical Society.

Dr. Charles C. Graham

Dr. Charles Clinton Graham, a former Iowa physician, died at Whittier, California, November 28, 1929 as the result of uremic poisoning due to arte-

riosclerosis of long standing. He was born in 1861 near Cedar Rapids, and after graduating from the State University of Iowa, College of Medicine, in 1884, practiced one year at Gowrie. He then located at Baxter, and continued the practice of medicine there for twenty-four years. After living in Des Moines and then in Oregon, he moved to Whittier, California, where he was engaged in active practice up to the time of his death. Interment took place at Angelus Abbey Mausoleum, at the same time that Dr. James W. Cokenower was interred, and it was a source of great comfort to the surviving members of both families that the two old friends and physicians might be brought together in this manner at the close of their life work.

**COURT GRANTS PERMANENT INJUNCTION
AGAINST C. A. PASTNER**

C. A. Pastner, a resident of Omaha, Nebraska, who has been practicing medicine in this state off and on for a number of years without a license, was permanently enjoined from so practicing by the District Court of Page County, Iowa. The application for the injunction was made by Gerald Blake, Assistant Attorney General.

Early in September, 1929, Pastner and H. C. Boyer, a medical doctor of Council Bluffs, opened offices in Shenandoah for the purpose of treating human ailments.

Herman B. Carlson, health department inspector, upon being informed of this partnership, informed both Dr. Boyer and C. A. Pastner of the violation, Pastner promised to retire from the business and leave the state.

Pastner, however, did not keep his promise with the inspector, but made itinerant visits to Iowa, and in December was arrested by the Sheriff of Fremont county, charged with the practice of medicine without a license. He was turned over to the sheriff of Page county, jailed and released on bond. The case would have come up before the Grand Jury, January 7th, 1930, but attorneys for Pastner agreed to have the court enter a decree of injunction against him, perpetually restraining him from the practice of medicine in this state without a license.

**BENEFIT FOR THE ROCHESTER GENERAL
HOSPITAL**

A novel plan has been used by a group of society women of Rochester, New York, for assisting a \$600,000 building fund for the benefit of the Rochester General Hospital. Through a Rochester Department Store, a day was set aside for this benefit, and 5% of the store's earnings was to be donated to the hospital fund. The counters in every department were served by this group of society women who assisted in the sales for the day. The store remained open until 9:30 p. m., in order that all customers attracted by the program could be served.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

DR. DAVID S. FAIRCHILD, Clinton, Chairman

DR. WILLIAM JEPSON, Sioux City
DR. FRANK M. FULLER, Keokuk

DR. ARTHUR D. WOODS, State Center
DR. WALTER L. BIERRING, Des Moines, Secretary

THE HISTORY OF THE PRACTICE OF HOMEOPATHIC MEDICINE IN IOWA.

D. S. Fairchild, M.D., F.A.C.S., Clinton, Iowa.

(Continued from last month).

From the birth of homeopathy in 1810, when the "Organon" was published, to 1812 when Hahnemann opened his school at Leipsic, but little attention was given to his theories. Hahnemann was now 55 years of age and had passed through every possible stage of failure, and had demonstrated his utter unfitness for the practice of medicine as it was then taught, when he began to enjoy some popularity as a homeopathic practitioner and a growing share of condemnation and persecution for holding to a doctrine at variance with generally accepted views. A small group of devoted followers who had been students under his instructions, opened up practice in different cities in Germany, but never received wide recognition, and almost no recognition outside Germany, except some popularity in Paris. In England no interest was felt in the system. The United States was to become the great field for homeopathy.

Hans Burch Gram appears to have been the first to bring the doctrine of Hahnemann to America. In about 1833 Gram located in New York and for two years was the only homeopathic physician in this country. Within ten years nine homeopaths joined in organizing the New York Homeopathic Physicians Society; this was in 1841. Not long after Gram began the practice of homeopathy in New York, Detwiller began practice in Allentown, Pennsylvania, and together with Wesselhoef, organized the so-called Allentown Academy for instruction in the principles of homeopathic medicine. But soon this school gave place to the organization of the Homeopathic Medical College of Pennsylvania in Philadelphia in 1848. It is said that Pennsylvania was a more congenial field for homeopathy than New York.

The spread of homeopathy in the United States was rapid, but appears to have gained but little, if any, headway in Europe. It appears also that the founders of homeopathic medicine in the United States were German homeopaths, probably former students of Hahnemann from his school in Cothorn from 1821 to 1835, when he left Germany and moved to Paris.

We are not only interested in homeopathy as it developed in Iowa, but in other states as well. "Dr. Beck planted the seed of Hahnemann's 'tree of life' in that fertile soil in the face of such obstinate resistance on the part of old school practitioners, that the worthy pioneer was compelled to yield to the pressure of adversity and betook himself to a more congenial neighborhood where he would be less beset by enemies."

In 1857 there were 19 homeopaths in Iowa, in 1870 there were 82. From 1870 to 1880 the number increased to 311, in 1890 to 324 and in 1904 to 370. We have no figures after 1904. We assume that as the period of theoretical and speculative medicine passed and a scientific basis became established, the number of real physicians practicing theoretical or sectarian medicine became smaller.

Dr. Beck, the first homeopathic physician to locate in Iowa, came to Dubuque about 1851 and remained two years. About the time Dr. Beck left Dubuque, Dr. Nathaniel Dodge located in Mount Pleasant and remained until 1855, when he was succeeded by Dr. C. P. Smith, who maintained himself there until 1859. Prior to 1860 Dr. W. H. Dickinson located in Des Moines (1858). Dr. E. A. Guilbert, Dubuque, 1856; Dr. E. C. Franklin, Dubuque, 1857; Dr. Gibson, Dr. C. Haught, Dr. W. S. Minier and Dr. H. E. Stone located in Davenport about 1857 and Dr. R. Q. James in Knoxville in 1854.

The Iowa Homeopathic Medical Association was organized in Davenport, May 21, 1862, but on account of the disturbed conditions incident to the Civil War, the work of the Association was

discontinued until May 31, 1870, when it was re-organized in Des Moines. The first homeopathic medical society was organized Sept. 30, 1875, at Waterloo, under the name of the Cedar Valley Homeopathic Medical Society. Following in rapid succession were nine other local medical societies.

From the foregoing record it is apparent that conditions were not favorable in Iowa for successful homeopathic practice until after 1860, for only a few practitioners of that school remained in any location more than two years; the vigorous pioneer was not ready for infinitesimal doses and potential power.

The doctrines of *contraria contrariis curantur* and *similia similibus curantur* are now of the past. In relation to the theory of infinitesimal doses there was an important element of safety and a suggestion as to the real value of medicine. Limiting our observation to the very few remedies having specific value, as opium, quinia, mercury, and iodide of potassium, it mattered little under what theory they were prescribed, certain well determined doses must be employed. We may not have known how they operated, but we did know what they would do; as to most other medicines, it was not material.

The study of bacteriology, of micro-organisms and infections changed our conception of the practice of medicine, and the time came when no honest practitioner of medicine could claim to be an allopathic, homeopathic, or eclectic physician; when we did observe the use of these distinctive terms we know that they relate to the traditions of the past, or are for commercial purposes.

We have now arrived at a time in the history of medicine when we have only two classes of medical practitioners, one class who practice as nearly as may be in accordance with the principle of scientific discovery and progress, and another class who practice in accordance with any principle which will attract public notice and gain a following, and are ready to change when popular notions change; all for commercial purposes on the principle of "good business."

We cannot conclude this brief history of homeopathic medicine in Iowa without a reference to the homeopathic medical department of the Iowa State University.

In the United States homeopathy gained its greatest popularity, but the field was not fully prepared until a certain degree of wealth and luxury had been reached. In states which supported universities by public taxation and which also maintained a medical department, a demand soon

appeared that the patrons of homeopathy should be represented in the university on the same terms as the "old or regular school" of medicine, contending that both systems were based on theories more or less sound. This contention had a certain degree of merit, until the scientific basis of medicine came to be organized.

Certain states maintained universities having medical departments, as Michigan, Iowa and Minnesota. Michigan was the oldest of the three states and was the first to organize a department of homeopathy. In 1855 the legislature of Michigan passed an act authorizing at least one professor of homeopathy in the university, but small results came from it. No very active steps were taken for several years to organize a homeopathic medical department, although the friends of homeopathy did not lose sight of what they thought were their rights. A bill passed the Michigan legislature providing a tax for homeopathic teaching at the university and directed the appointment of homeopathic professors, which the Regents refused to obey. An appeal to the Courts resulted in a decision that it was beyond the jurisdiction of the legislature to determine what should be taught at the university. However, in 1871 the Regents adopted a resolution that approved the efforts being made to establish a homeopathic school in Detroit, to be connected with the university, with proper provision for its support.

Acting on the resolution of the Regents, the friends of homeopathy established a college at Detroit, which was chartered in 1871. On April 21, 1875, a law was passed appropriating \$6000 to support two homeopathic professors at Ann Arbor. Having in mind their former experience, a rider was attached to the appropriation bill which would cut off the annual appropriation for the university from the state until the Regents carried out the wishes of the legislature. As the university had a productive fund of only \$500,000 bringing an annual income of \$35,000, aside from the students' fees for all the departments, the question became vital to the university and the regents were forced to submit and the college at Detroit suspended May 6, 1875.

Notwithstanding the appointment of professors at Ann Arbor, the homeopathic profession of Michigan was not satisfied with the conditions, as it did not give them the kind of medical college they desired, and on the opening and endowment of Grace Hospital at Detroit in 1889, the question of transferring the department to Detroit was agitated. In 1895 a bill was passed by the Michigan legislature to remove the homeopathic

school to Detroit and appropriate \$25,000 for this purpose. This the Regents refused to do and a new and independent homeopathic college at Detroit was opened in September 1899, with a faculty of 30 professors and 30 students.

HOMEOPATHY IN IOWA STATE UNIVERSITY

Following in the steps of the homeopaths of Michigan, the friends of this school of practice in Minnesota and Iowa became active in urging legislation and appropriations to establish homeopathic departments in their respective universities. There was naturally considerable opposition in Iowa to maintaining two medical departments at the University, as being unnecessary and inexpedient, but the opposition was not of an unfriendly nature and was carried on in a spirit that engendered no bitterness; very little use was made of the term persecution by the minority school. The spirit of antagonism never spread widely among the profession of the state, and long before the homeopathic school was abandoned, professional intercourse between the "regular" and homeopathic physicians became a recognized practice.

Two years after the organization of the "regular" medical school at Iowa City, or in 1872, the friends of homeopathic medicine, through a committee, brought to the attention of the Regents the need of homeopathic medicine in Iowa, with a request for a department representing this school on an equality with the "regular" school. The fairness of this request was admitted, but the financial condition of the university would not permit the necessary expenditure. In 1876 the matter was presented to the legislature, and on March 17 an act was approved which authorized and directed the Regents "to establish as soon as practicable a department of homeopathy in connection with the medical department already established." Funds were appropriated for the purpose and maintaining two chairs in this school. Before these provisions were carried out, a committee representing homeopathic physicians appeared before the Regents (June 1876) and were requested to present a plan of separate organization of a complete school and faculty except chemistry.

In June, 1877, the two chairs provided for by the legislature were filled by the appointment of Dr. A. C. Copperthwait and Dr. W. H. Dickinson, with arrangements to commence instruction the next school year. Ten years later, or in 1887, the two schools had become completely separate.

The history of the growth and development of the homeopathic medical department shows that

it had to contend with the economy notions of the legislature which had been parallel with the experience of the regular department. Additional chairs had to be provided for from time to time. There were also internal troubles that sometimes came to the surface. It is recorded that in June 1880 the chair of surgery in the homeopathic school was abolished, students being sent to the regular department for surgery, but before the year closed the chair was restored, March 1881, but before the year ended the chair became vacant by resignation and was abolished again the same year. These are matters not important to record, only incidents in medical organization and do not mean a want of medical stability, but a tendency to scientific medical progress.

As already intimated, there had been a tendency to look beyond medicine based on theory and speculation to a more stable basis of scientific facts and a more scientific attitude of mind. Real medicine, therefore, has brought its practitioners closer together, not in accepting formulae, but in arriving at conclusions from quite different premises and by different processes of reasoning.

It became quite evident as medical science advanced, that in a university atmosphere two divergent schools based on exploded theories could not long exist, and without surrendering venerable theories merged by insensible degrees, and at last became one school of medicine and recognized as such by legislative act. Therefore, in 1819 by an act of the Iowa legislature the homeopathic school was discontinued and a provision made for two chairs, one of homeopathic therapeutics and one including homeopathic practice. A measure of this kind had been accepted by the legislature several years before but on account of vigorous protests, the department was restored. The time finally came when it was impossible to secure students who were willing to accept a medical dogma of whatever kind it might be, and in 1919 the homeopaths were quite willing to give up their school, with a provision that those who desired to specialize in homeopathic materia medica and in homeopathic practice would be able to do so. This was an expression of an admirable professional spirit in Iowa and may fairly be said to be the beginning of what is known as the Iowa idea in medicine, which promises to give the state the leading place in medical organization.

However much we may have differed from our homeopathic neighbors in relation to the practice of medicine, we could not deny that as men and gentlemen there could be no material difference between the advocates of the two schools, and

when the progress of medical science brought us into closer professional relations and we were less blinded by prejudice, we found that both were wrong and that there was a common ground upon which to render service.

There is some reason to believe that we were the aggressive party and we may recall the horror we felt at the thought of consulting with a homeopath, which seems ludicrous today. One of the most dramatic events in the history of our state medical society was when Dr. J. T. Priestly and Dr. Lewis Schooler confessed in open session that they consulted with respectable homeopathic doctors, indeed, Dr. Schooler stepped down from the high place as president of the State Society to join Dr. Priestly in his confession. Charges were preferred against the Polk County Medical Society because these bold members were not brought to speedy trial and promptly executed. But when another year came around and the case brought to trial, it was found that a jury could not be secured.

The homeopaths still maintain a state medical society and publish an excellent Journal, now in its 16th volume; well edited, moderate in tone, and with which the Journal of the State Society maintains friendly relations and from which valuable suggestions are obtained. The purposes of these homeopathic activities appear to be to keep alive homeopathic traditions and to do honor to a name which a multitude of practitioners have held in veneration for 112 years. For nearly 100 years the majority school of medicine held the name of Hahnemann in derision, but today we may join with our homeopathic friends in doing honor to this strange man, whose teachings many of his followers did not understand.

We have welcomed homeopaths who are also physicians, into fellowship in our county, state and national societies, and the time is not far distant when, if separate societies are maintained, it will be only on account of minor differences in therapeutic measures and applications like our specialists' societies.

BLACK HAWK WORKING FOR COUNTY HEALTH UNIT

The Black Hawk County Medical Society, with fourteen other organizations, has requested the Board of Supervisors to establish a County Health Unit, with a full time Health Officer and assistants. The project has been favorably received and is being carefully considered by the County Board of Supervisors. Dr. D. C. Steelsmith, Deputy Health Commissioner, has rendered valuable assistance in collecting material for presentation to the Board.

NEW MEDICAL CENTER FOR NEW YORK

According to "Modern Hospital," plans have been filed by New York Hospital and Cornell Medical College for the erection of a huge new medical center in New York City. The new center, to be erected on the east side overlooking the East River, will cover three city blocks, and will be one of the most complete institutions for the unified advancement of teaching, research, and the care of the sick in the country.

The completed group will comprise thirteen buildings, all of the latest fireproof construction. The nurses' home will house 500 student and graduate nurses. One of the structures will provide quarters for 100 resident physicians. Facilities also will be provided for the training of 300 undergraduate medical students and for many advanced students in medicine.

The first eleven floors of the main building will make up a complete general hospital. The twelfth to seventeenth floors will comprise a hospital for private patients. From the eighteenth floor upward will be the living quarters for the physicians and surgeons of the resident staff. In the basement of this central building will be the general and special diet kitchens as well as the rooms for records. Other buildings will include a maternity hospital, a children's hospital, and a hospital for mental cases.

The new center will have combined endowments and other resources amounting to \$100,000,000, it is estimated. The main building is expected to cost \$15,150,000. The General Education Board established by John D. Rockefeller, has authorized an appropriation of \$7,500,000, and a bequest of the late Payne Whitney is expected to supply \$15,000,000. In addition, the hospital will ask for donations of \$15,000,000 more.

JOHN H. PECK, M.D., ADDRESSES STATE VETERINARY MEETING

Dr. John H. Peck, President of the Iowa State Medical Society, addressed the Iowa State Veterinary Association, which held its forty-second annual meeting in Des Moines, January 15-17. He credited Iowa veterinarians with causing a marked decrease in human tuberculosis through such preventive measures as, tuberculin tests, pasteurization of milk, and better sanitation.

MATERNITY AND INFANT MORTALITY TO BE STUDIED

At a recent meeting of the Black Hawk County Medical Society it was unanimously voted to co-operate with Dr. E. D. Plass, Professor of Obstetrics and Gynecology at the Iowa State Medical College, in a survey of maternity and infant mortality in Black Hawk County.

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

THE MEDICAL MUSEUM, BASED ON A NEW SYSTEM OF VISUAL TEACHING—By S. H. Dankes, O.B.E., M.D.—The Wellcome Foundation Ltd., London, 1929.

THE MEDICAL CLINICS OF NORTH AMERICA, Vol. 13, No. 3 (Issued serially, one number every other month)—Per Clinic Year—Paper, \$12.00; Cloth, \$16.00—W. B. Saunders Co., Philadelphia, 1929.

TEMPERANCE OR PROHIBITION—The Hearst Temperance Contest Committee, Francis J. Tietz, Editor—The New York American, Inc.—New York, 1929.

A TEXTBOOK OF PHYSIOLOGY FOR NURSES—By William Gay Christian, M.D., and Charles C. Haskell, B.A., M.D.—Second Edition, The C. V. Mosby Co., 1929—Price, \$2.00.

RESEARCH AND MEDICAL PROGRESS AND OTHER ADDRESSES—By J. Shelton Hensley, M.D.—The C. V. Mosby Co., St. Louis, 1929—Price, \$2.00.

SYMPTOMS OF VISCERAL DISEASE—A study of the Vegetative Nervous System in its Relationship to Clinical Medicine—By Francis Marion Pottenger, A.M., M.D., etc.—Fourth Edition, The C. V. Mosby Co., St. Louis, 1930—Price, \$7.50.

NURSING IN EMERGENCIES—By Jacob K. Berman, A.B., M.D.—The C. V. Mosby Co., 1929—Price, \$2.25.

GETTING WELL AND STAYING WELL—A Book for Tuberculous Patients, Public Health Nurses and Doctors—By John Potts, M.D.—Second Edition, the C. V. Mosby Co., St. Louis, 1930—Price, \$2.00.

BOOK REVIEWS

THE BLOOD PICTURE AND ITS CLINICAL SIGNIFICANCE

(Including Tropical Diseases)

A Guidebook on the Microscopy of Blood—By Professor Dr. Victor Schilling, Physician-in-Chief, The First Medical University Clinic, Charité, Berlin—Translated and Edited by R. B. H. Gradwohl, M.D., Director of the Pasteur Institute of St. Louis, and the Gradwohl School of Laboratory Technique, St. Louis, Mo., etc.—Seventh and Eighth Revised Edition, with 44 Illustrations and 4 Color Plates—Price, \$10.00—St. Louis, The C. V. Mosby Company, 1929.

This volume has been prepared as guide to physicians and students in the clinical interpretation of laboratory findings in hematology. Professor Schilling, as a result of long clinical observation, has developed a system of interpretation which he describes under the heading of the "blood picture." In order to follow his outline, it is necessary that the patient's blood be examined both by the "thick drop" method, and also by the usual "blood smear" method. He believes that with different clinical manifestations of disease, the cytological picture undergoes corresponding change which will be duplicated with regularity. He introduces all of the necessary hematological technique in the first portion of his book, reserving over one-half of the page space, however, for a discussion of the theories involved and an interpretation of the results obtained in practical bedside use.

The volume brings to American physicians an outstanding German monograph covering a subject which has never received consideration from the

same viewpoint in English literature. Since the technique involved in reproducing the results which Dr. Schilling reports is tedious, and requires considerable accuracy in performance, it is doubtful that the method in its entirety will receive popular acceptance. However, those physicians interested particularly in hematological diagnosis or the work of the clinical laboratory, will find the volume highly useful, and one well worthy of careful study.

The publishers of this volume are to be complimented on their workmanship, since the volume, both in printing and in reproduction of plates, represents high skill in the printer's art.

THE SURGICAL CLINICS OF NORTH AMERICA

(Issued serially, one number every other month). Volume 9, number 6, (Lahey Clinic Number—December 1929) 188 pages with 51 illustrations, and complete Index to Volume 9. Per Clinic year (February 1929 to December 1929). Paper \$12.00; Cloth, \$16.00. Philadelphia.

Drs. Lahey, Clute, Hurxthal, Mason, Cattell, Hoover constituted several interesting numbers dealing with various phases of goitre both clinical and technical and all of decided value. Dr. Sise has an article upon anaesthesia in which he discusses the vascular depression of spinal anaesthesia and also gives his clinical impression of two new anaesthetics, sodium amytal and avertin. Dr. Adams treats of the toxic effects of sodium tetraiodophenolphthalein (Graham test). Dr. Cattell has an interesting article upon the complications following the injection treatment of varicose veins.

An exceptionally interesting clinical number.

F. W. F.

INTERNATIONAL CLINICS

Edited by Henry W. Cattell, A.M., M.D.,
with the Collaboration of Charles H. Mayo,
M.D., Rochester, Minnesota—Volume III,
Thirty-Ninth Series, 1929—Philadelphia and
London, J. B. Lippincott Company, 1929.

The outstanding presentation in this volume is a summary of our knowledge relative to the treatment of anemia. Dr. Victor E. Levine, author of this monograph, considers the subject in its entirety, discussing in turn (1) anemia as a biologic handicap, (2) causes of anemia, (3) symptoms of anemia, (4) chlorosis, (5) pernicious anemia (6) sprue, (7) aplastic anemia, (8) the building requirements of the red cell, (9) the distribution of iron, (10) the distribution of anemia-preventing factor, (11) the nature of the anemia-preventing factor of Whipple and Robscheit-Robbins, (12) the results of treatment with the dietary principles of Whipple and Robscheit-Robbins, (13) the Minot-Murphy treatment in anemias other than pernicious anemia, etc. In closing this valuable article, he furnishes a bibliography covering some two hundred references to current literature. This article alone is well worth the price of the entire volume.

Other articles of general interest in the field of diagnosis and treatment are "The Spastic Colon" by Charles J. Drueck, "The Technic of Intravenous Medication" by William H. Deaderick and "The Control of Hypertension by Antipituitary Serum" by C. Legiardi-Laura, and Charles J. Brim.

In the field of surgery, an article entitled "The Traumatic Abdomen" by James T. Lacey is outstanding.

The final fifty pages of the volume are devoted to a discussion of timely medical suggestions under the headings of "Medical Questionnaires" and "Medical Trend." The discussion of these subjects, collated by B. Bickel, briefly summarizes current opinion as reflected in current literature, and will either furnish the answer to problems developed in daily practice, or furnish references to the literature of the subject so that the interested physician may readily carry his investigation farther.

GENERAL MEDICINE

(The Practical Medicine Series)

Edited by George H. Weaver, M.D.—Volume I—Series 1929—Chicago, The Year Book Publishers—About 800 Pages—Price \$3.00.

The Year Book publishers have again offered to the medical profession the first of their annual series dealing with advances in medical science during the preceding year. This volume, covering the field of general medicine, is somewhat larger and more comprehensive than the volumes of previous years. The volume is divided into five sections, each edited by a

competent authority, and contains the critical comment of this authority upon the year's literature dealing with the subject treated. All of the newer points in diagnosis and therapy demonstrated during the year are presented, together with the author's viewpoint on their usefulness.

For the physician who, because of limited time, cannot search current medical literature personally, this volume will prove valuable indeed, and to those physicians who are able to follow the trend of medical thought, the author's analysis of this literature will prove extremely valuable.

This volume may be bought separately, or as one of the annual series.

THE MEDICAL CLINICS OF NORTH AMERICA

Chicago Number—Published Bi-Monthly
—Volume 13, Number 2—Philadelphia and
London, W. B. Saunders Company, September, 1929.

This volume, prepared by physicians associated with the medical schools of Chicago, covers not only suggestions in the medical field, but also a limited number of articles dealing with surgical conditions and surgical diagnosis. Such articles as "The Anemias of Infancy" by Dr. Clifford G. Grulee, and "Chorea" by Dr. Jesse R. Gertsley, will be of especial interest to the pediatrician. The dermatological clinic of Dr. Clark W. Finnerud will be found useful by the specialist and the general practitioner alike, since in this clinic, he discusses eight rather puzzling dermatological conditions. "The Neurological Aspect of Optic Neuritis" by Dr. Lewis J. Pollock, and the subjects of "Pernicious Anemia" and "Acoustic Neuroma" by Dr. Leroy H. Sloan, should prove valuable to the specialist in oto-laryngology.

This volume maintains the high standard previously established in the preparation of these clinics.

MODERN METHODS OF TREATMENT

By Logan Clendening, M.D., Professor of Clinical Medicine, Lecturer on Therapeutics, Medical Department of the University of Kansas, etc.—With Chapters on Special Subjects by H. C. Anderson, M.D., J. B. Cowherd, M.D., H. P. Kuhn, M.D., Carl O. Rickter, M.D., F. C. Neff, M.D., E. H. Skinner, M.D., and E. R. DeWeese, M.D.—Third Edition—St. Louis, The C. V. Mosby Company, 1929—Price, \$10.00.

Since this work first appeared in 1924, it has been accorded a very definite and important place both in medical teaching as a textbook, and in the doctor's library for reference. This is the third edition of this work, and has brought the volume entirely up-to-date. It is significant that the last edition was printed only a little over a year ago, and sufficient of new material and revision was found to justify this third edition.

In the first portion of the volume, general therapeutic measures are discussed, such as drugs, rest, biologic therapy and prophylaxis, glandular therapy, hydrotherapy, dietetics, etc. In the second part, special therapeutics are discussed, with especial reference to their application to particular diseased conditions. The author has attempted (with great success) to present in every instance sufficient detail concerning the therapeutics suggested so that the physician unacquainted with the procedure will have no difficulty in carrying it out in the proper manner. The author has not attempted to include all therapeutic measures, but rather to select from the many advocated those which, in his own experience, have proven efficient, or those methods recommended by others which seem to have a proper physiological basis for use. The text is simplified and technique explained by numerous drawings, charts, and photographs. A short bibliography follows each chapter.

CLINICAL MEDICINE FOR NURSES

By Paul H. Ringer, A.B., M.D., Formerly Chief of Medical Service of the Asheville Mission Hospital, Asheville, N. C.; and on the staff of Biltmore Hospital, Biltmore, N. C.—Illustrated—Third Revised Edition—Philadelphia, the F. A. Davis Company, Publishers, 1929—Price, \$3.00, net.

This volume is the outgrowth of the author's experience as a teacher in the training school of the Asheville Mission Hospital. He attempts to present in brief form such information relative to etiology, symptoms and treatment of medical conditions as may be useful and required of the attending nurse. He has purposely omitted all discussion relative to physical signs, differential diagnosis, and non-specific (that is, symptomatic) treatment. Sufficient emphasis is placed upon nursing care, the application of remedies, and the conditions to be anticipated complicating the various disorders. Prophylaxis is well covered and properly emphasized. The volume is intended solely as a guide in the teaching of clinical medicine to nurses.

BACTERIOLOGY FOR NURSES

By Harry W. Carey, A.B., M.D., Assistant Bacteriologist, Bender Hygienic Laboratory, Albany, N. Y. (1901-1903); Pathologist to the Samaritan Hospital, Troy, N. Y.—Third Revised and Enlarged Edition—Illustrated with Forty-three Engravings and One Colored Plate—Price, \$2.25, net—Philadelphia, the F. A. Davis Company, Publishers, 1930.

This is the third edition of a book already popular as a textbook in nurses' training schools. Revision has been necessary due to the rapid advances made in some branches of bacteriology since the last edition was released some ten years ago. The present text is more complete than nurses' texts on

this subject commonly are, which, if used in connection with a lecture course, is a valuable quality since the book may then be used for reference purposes.

A satisfactory number of illustrations are distributed through the text, and a closing chapter of laboratory exercises and demonstrations is appended. The glossary of technical terms will prove very beneficial in introducing the study of this new science.

STONE AND CALCULOUS DISEASE OF THE URINARY ORGANS

By J. Swift Joly, M. D., (Dub.) F. R. C. S. (Eng.), Surgeon to St. Peter's Hospital for Stone; Consulting Urologist to St. James' Hospital, Wandsworth—With 189 Illustrations in the Text and Four Colored Plates—St. Louis, The C. V. Mosby Company, 1929. Price, \$16.00.

The condition of stone in the urinary bladder has received attention and full recognition since the earliest days of medical science. However, with the introduction of modern laboratory methods for exactness in blood and urine chemistry, the X-ray and cystoscopy, the diagnosis and treatment of this condition have been materially altered. According to the author, there has been no book published in the English language treating solely this condition for the past twenty years. Prior to the publication of this volume recent knowledge was from necessity, obtained either from an individual search of the literature as appearing in current journals, or the incomplete and sketchy accounts ordinarily included in works on surgery or urology. This book of 568 pages is devoted exclusively to the study of calculi of the urinary tract, and is, without doubt, the most comprehensive work on this subject which has ever appeared in any language.

The author, from his long experience as an attending surgeon for the St. Peter's Hospital for Stone has a background for the presentation of this subject which is unique. The volume contains contemporaneous thoughts carefully scrutinized and valued in terms of a clinical experience extending over many years. The author divides the subject into eight large chapters, and by this convenient division discusses in his compact and orderly fashion every angle of the subject of urinary calculus.

The volume is well illustrated with 189 black and white prints and four colored plates. All reproductions of calculi in the book are natural size. A generous and apparently complete bibliography is placed at the close of each chapter.

THE MEDICAL RECORD VISITING LIST Or PHYSICIAN'S DIARY FOR 1930

Revised—New York, William Wood and Company, Medical Publishers. Price \$2.00 net.

This convenient pocket-size book is designed so that two full pages are provided for each week during the year, with separate columns for indicating the exact date of the visit and the reason for the call. A brief section in the forepart of the book provides useful information relative to emergencies in the relief of poison cases and a rather complete dose chart.

PRACTICAL MASSAGE AND CORRECTIVE EXERCISES WITH APPLIED ANATOMY

By Hartvig Nissen, Late President of Posse Normal School of Gymnastics; Superintendent of Hospital Clinics in Massage and Medical Gymnastics, etc.—Fifth Edition, Revised and Enlarged by Harry Nissen, President, Posse-Nissen School of Physical Education, Boston, Mass.—Illustrated with 72 Original Half-tone and Line Engravings—Price, \$2.50 net—Philadelphia, F. A. Davis Company, Publishers, 1929.

This volume has been prepared as a textbook for students at the Posse-Nissen School of Physical Education, and outlines the system of Swedish exercises popularized by Ling in Sweden early in the 19th century. This fifth edition has been rewritten and revised, although the methods discussed are essentially those introduced by the father of the present author some thirty years ago.

The book is divided into three sections: (1) a discussion of the different manipulations and their physiological effects; (2) the applied anatomy and a discussion of corrective exercises applicable in various conditions; (3) the clinical application of massage and exercise in the correction of physical disabilities.

This volume is adequately illustrated.

SOCIETY PROCEEDINGS

(Continued from page 90)

Johnson County Annual Meeting

Wednesday, December 4, the Johnson County Society held its annual meeting at the American Legion building at 5:30 p. m. Following the dinner, Dr. Channing G. Smith, Chairman of the Council, Dr. John H. Peck, President of the state society, and Mr. Vernon D. Blank, Managing Director, spoke briefly upon various phases of state society activities.

The following officers were then elected: President, Dr. H. L. Beye, Iowa City; secretary, George C. Albright, M.D., and delegates, Dr. A. W. Bennett, Iowa City, and Dr. F. L. Love, Iowa City.

The evening was concluded with a presentation of the Canti Film. The annual report of the secretary of this society will be of special interest and was as follows:

"Beginning January first we had one hundred members, two of whom were non-resident. We had twenty-two junior members. One new member was added during the year. Sixteen new junior members, for the year 1930, have been added during the

last month, making the total membership one hundred and forty. We have lost during the year six members by transfer. Eleven have left, but have not yet asked for their transfers. Eight junior members have left, making a total loss of twenty-five. This leaves the net membership one hundred and fifteen—thirty are juniors and eighty-four seniors.

"During the year, ten meetings have been held, and ten scientific programs have been given. Eight of the programs have been contributed entirely by the members of the society. The June program was a combined society and public meeting. Both meetings were addressed by Dr. Morris Fishbein. The meeting of tonight is a presentation of one of the outstanding pieces of scientific research of today, in form of a moving picture film.

"The average attendance for the year exclusive of tonight has been 70.7 members, and 13.3 guests, an average total of 84. The attendance of tonight is 106 of which 91 are members. Fourteen members, Albright, Berne, Beye, Budd, Floyd, Fowler, Fox, Gibbon, Miller, Geo. H., Miller, N. F., Pfohl, Reed, Rohner, and Wolfe, have attended every meeting. Eighteen have attended every meeting save one: Baldrige, Boyd, Cole, Feisler, Hansmann, Hessel-tine, Jeans, Jenkinson, Kessler, J. B., Kimball, Lee, McClintock, Peterson, Plass, Rankin, Ring, Rutherford, and Titzell. Three senior members and one junior member have attended none. Until tonight the maximum attendance of members was November sixth at Oakdale—88, although the March attendance of 87 was a close second.

"Our officers have appreciated tremendously the earnest and sincere cooperation of all the members of the society. Without it, the excellent programs and the splendid good will which exists would not have been possible. We earnestly bespeak for the officers of 1930 a continuance of the same loyal support. To the officers, who will constitute the program committee, we leave a heritage of contributions, which members expressed themselves willing to make, sufficient to last for at least two years. This should make the work of the program committee, except for the task of selecting that which is best, quite easy.

"A number of very important avenues are open to the society, through which it may enlarge its field of activities. These have come to us, and will continue to come, such as: Contribution to the public health movement. A distinct contribution to the work of organized medicine throughout the state by means of the young men who go out from our society each year. A continued, large opportunity for promoting good feeling between the medical profession of the state and the University Hospital, the need of which is regrettable, though I believe, apparent.

"In closing may I quote the statement made a year ago, and two years ago, which I still firmly believe, 'that the Johnson County Medical Society is, and of a right should be, the best county medical society in the state'."

MARSHALL COUNTY ANNUAL MEETING

The annual meeting of the Marshall County Society was held Tuesday, December 3, in the Tallcorn Hotel in Marshalltown, forty members of the society being present. President John H. Peck, Councilor Chairman Channing G. Smith, and Managing Director Vernon D. Blank were present and spoke upon state society affairs and the annual session to be held in Marshalltown May 14, 15, 16, 1930. Dr. Peck stressed the importance of the role which the local society must play in making the annual session a success and explained the proposed plans for the Marshalltown meeting.

The election of officers resulted in Dr. A. D. Woods, State Center, being elected president; Dr. L. H. Ferris, Melbourne, vice-president, and Dr. E. H. Noble, Clemens, delegate. Dr. W. W. Southwick, Marshalltown, was re-elected secretary.

Webster County

The Webster County Medical Society held a regular fortnightly meeting Tuesday, January 21, at the Wakonsa Hotel in Fort Dodge. Vice-president T. J. Dorsey presided and introduced the Chairman of the Council, Dr. Channing G. Smith of Granger who explained the general organization and operations of the state society. Mr. Vernon D. Blank, managing director of the state society then gave a brief address on What You Get for the Seven-Fifty in which he explained legislative activities, the conduct and finances of the Journal, the business management of society affairs, and the work of the various officers and standing committees of the state society.

Dr. Rohlf's Birthday Clinic

More than one hundred of "Bill" Rohlf's friends gathered to celebrate his sixty-third birthday at an all day clinic over which the host presided, assisted by Dr. H. C. Habein of Rochester, Dr. J. R. Buchbinder of Chicago, and Dr. N. G. Alcock of the State University, Iowa City. One hundred and twenty guests sat down to a banquet which was followed by an evening that was replete with tributes to the president-elect of the Iowa State Medical Society. Dr. J. F. Auner of Des Moines presided as toastmaster and introduced Dr. T. U. McManus of Waterloo, Dr. John H. Peck of Des Moines, Dr. L. A. West of Des Moines, Dr. J. H. McDaniel of Nashua, Dr. Michael Kenefick of Algona, Dr. L. H. Goodell of Nashua, and Mr. Vernon D. Blank of Des Moines as speakers.

The evening ended with Dr. Rohlf answering the question, How Does It Seem to be Sixty-Three? in the following words, "It feels like a million dollars. Life is richer from year to year, and it is richer for me tonight than it has ever been. I'm still as ambitious, still as much 'hitched to a star' as at twenty-three."

SECRETARY MINNESOTA MEDICAL SOCIETY ON PROGRAM IOWA TUBERCULOSIS ASSOCIATION

The following announcement from the state tuberculosis association lists Dr. E. A. Meyerding, secretary of the Minnesota State Medical Society, as one of the principal speakers:

"The annual meeting of the Iowa Tuberculosis Association and the quarterly meeting of the Iowa Sanatorium Association will be held jointly at the Hotel Martin, Sioux City, Thursday and Friday, February 27-28.

"On the first day there will be presented a strong medical program dealing with childhood tuberculosis, heart disease, the early diagnosis campaign, the summer round-up and the school survey of handicapped children. A scenario of special interest to public health nurses will be a special feature that day. The annual dinner and social entertainment will take place Thursday night.

"On Friday night there will be a number of out of town speakers including a representative from the National Tuberculosis Association, New York, Dr. E. A. Meyerding of St. Paul, H. M. Cass of Huron, S. D., and Miss Alice Marshall of Omaha.

"Special features will be a luncheon of county and city chairmen, round table discussions on the uses of local funds, and an hour of moving pictures. Health education methods will be discussed at one of the Friday sessions.

"The program is of special interest to teachers, physicians, nurses and laymen interested in public health."

FLYING AMBULANCES

Significant of the trend of the time, several of the national aeroplane travel companies have announced a twenty-four hour service for the transportation of sick patients to and from the following cities: New York City; Springfield, Mass.; Philadelphia; Pittsburgh; St. Petersburg, Fla.; Oklahoma City; St. Louis; Indianapolis; Chicago; Buffalo; Boston; Birmingham; Atlanta. This service may be extended to any city operating a suitable landing field.

RADIUM TREATMENT AVAILABLE FOR SICK POOR

The Ohio State Medical Association has announced a plan for providing radium for the sick poor which is worthy of emulation by other similar organizations. A trust fund of \$50,000 for the purchase of radium to be used by any and all physicians of Cleveland, Ohio, for the treatment of the indigent poor, has been established. The individual creating this fund has elected to remain anonymous, acting solely through the agency of the Ohio State Medical Association.

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THE PHYSICIAN'S POLICY IS MEAD'S POLICY

Messrs. Mead Johnson & Company, in addition to producing dependable Infant Diet Materials such as Dextri-Maltose, have for years been rendering physicians distinguished service by rigidly adhering to their well-known policy which is the following:

"Mead's Infant Diet Materials are advertised only to physicians. No feeding directions accompany trade packages. Information in regard to feeding is supplied to the mother by written instructions from her doctor who changes the feedings from time to time to meet the nutritional requirements of the growing infant. Literature is furnished only to physicians."

Every physician would do well to bear in mind that in this commercial age, here is one firm that instead of exploiting the medical profession, lends

its powerful influence to promote the best interests of the medical profession it so ably serves.

A MEDICAL JOURNAL IN HEBREW

The second issue of "The Hebrew Physician," (Harofeh Hoibri), the only Hebrew Medical Journal published outside of Palestine, has just made its appearance.

This Journal is under the editorship of Dr. Moses Einhorn and Dr. L. M. Herbert. It consists of 180 pages and contains numerous articles on general medical subjects, including a copy of the manuscript on "Hemorrhoids," by Shlomo Eben Ayub of Badrash, France, (1265 A.D.). A special section is also devoted to new Hebrew Medical terminology.

All physicians who are interested in this journal, are requested to communicate with The HEBREW PHYSICIAN, 983 Park Avenue, New York City.

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MEDICINE AND THE CHANGING ORDER*

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"Happiness—contentment—morality, under attack by the modern spirit of change—speed—unrest. Humanizing culture spurned. Children overwise and blase. Adolescents mocking marriage. Crime luring youth to ruin. Men and women whizzing through life to the ceaseless clatter of machines—The Machine, a splendid servant but a soulless master. Potent forces of decadence menacing the race!"

Some of you doubtless will recognize this quotation; to others it will sound like the acidulous comment of a pious clergyman on the tendencies of this generation. It is, of course, nothing of the kind; it is part of an advertisement of the Musician's Union appealing against the displacement of scores of thousands of their membership in theatres by well-nigh perfect and infinitely less expensive reproductions of music. We may sigh a bit over it, but I suspect the average citizen will reflect that not so long ago the same crux was faced by hair-pin manufacturers—not to mention brewers, nor the makers of woolen underwear for women—and that anybody's turn may come next.

The rapid social changes which have taken place in this generation have been talked about so much that the subject, I fear, has lost its savour. But unless we keep constantly before us the fact that we are living in a time of unparalleled shifting of values, of incredible alterations in the business of life, we are likely to lose our sense of proportion, and to be thinking of today's problems in terms of yesterday.

Perhaps we are nearing the peak of this swift beat in the pulse of our social order—perhaps

not; it is worth while, however, to pause occasionally and remember that a fresh environment has been thrown around us within two or three decades, and that a great deal of what was true a generation ago must be re-examined for its usefulness and validity in the conditions of today.

Every phase of our living—economic, domestic, educational, governmental, industrial—has felt the driving force of this changing environment. New enterprises spring up, old and familiar ones decay. A society caught in the swift current of evolutionary movement is not altogether in a happy state; there are novel powers and potentialities, fresh and unimagined richness and variety—but there is also inequality, friction, loss and disillusionment. Those of us who are parents have a good deal of mental anguish over children who seem not to adjust themselves effectively to the demands of life, and who look lightly or scornfully upon things that seemed eternal verities to us. Probably we need to look to our own state of mind, to see whether or not we are appraising properly the signs of the times. Young people often enough have lost touch with land-marks familiar to us, and have more excuse than we have for floundering.

Medicine as a whole, touching as it does every facet of human life and activity, has not been spared from the impact of these swift moving forces of a new civilization. The curtain has rung up for new turns—older scenes and actors are moving off; they are applauded and regretted, but they are on their way. Great and untried opportunities abound, but also dangers, fears, anxieties.

Just where are we headed? There may be opportunities, but how are they to be developed? No one knows; but just as we are re-examining all other phases of human thinking and human enterprise, so we must expect to have our notions and methods and standards of medical practice dissected and appraised. Our brethren of the

*Read before the Iowa and South Dakota Sectional Meeting of the American College of Surgeons, Des Moines, Iowa, January 30, 31, 1930.

church have been getting around to this process a bit earlier than we have; one can see very clearly the intellectual temper of our time in the revaluations of religious thought. Those to whom it seemed that men were clinging to artificial, secondary and outworn notions have been attempting to interpret basic spiritual values in terms of experiences which grow and change with the race. By so doing richer and more meaningful concepts have been brought to many, but others have been antagonized, or hurt, and embittered.

And now we may expect to see the same sort of conflict in the temple of Aesculapius. There are modernists among us; and just as occasionally scientists burst disturbingly into the debates of theologians, so we find that it is not physicians alone who are concerning themselves with the state of medicine and medical practice in this year of our Lord. Indeed no; voices are heard from everywhere, complaining, exhorting, advising. It is time, I think we can admit, to ask what is wrong, if anything, with medicine. It is time to recognize that if a re-study of our ideas and methods is not made promptly by ourselves it will be made by others less sympathetic with our corporate failings.

If there are any here who have not read a recent article by Edward Filene of Boston, in which a critique of modern medicine is delightfully made, they should do so at once. There are two sentences in that essay to which I should like to direct your attention. "In the first place" he says, "I do not believe that doctors generally are receiving anything like sufficient pay for their services: in the second place, I think the public as a rule is paying altogether too much for what it gets." In a very brief sentence this is an appalling indictment of economic ineffectiveness. Is it true? If it is, far-reaching adjustments will come about, either by change from within or by pressure from without. The second arresting sentence is this; "The function of the practitioner today must be less and less a matter of applying his own superior wisdom to the needs of the patient, and more and more a matter of placing at the service of the patient the knowledge and skill of the whole medical profession." This sounds revolutionary; here is modernism indeed. But if one thinks this is merely idle talk from an unenlightened outsider, listen to one of our own prophets; "We have the facts" says Ray Lyman Wilbur, "we have the trained physicians and nurses, but we have not as yet been able to meet the ideal of seeing that each member of civilized society obtains that advantage which is possible

to him if he can get his share of the great pool of scientific medicine. To make medicine fit in with the other social forces so that its distribution will be uniform, is vital. . . ."

The foregoing quotations turn one's mind inescapably to one of the fears which has been brooding over the profession for a good while past—one of those traditional ideas which must come under examination sooner or later in light of a new social estate. It seems to me worth while devoting the remaining few moments to a scrutiny of this particular devil of medical fundamentalism, even at the risk of being damned as a heretic.

What Dr. Wilbur and Mr. Filene are talking about really is the corporate practice of medicine, the assembling of professional scientific resources to serve large numbers of people with economy and effectiveness. The merchant says this will in the end mean better business and larger rewards, the physician and statesman says that we must do it to meet our responsibilities in an altered economic state of society—and in order to survive.

These proposals skirt perilously close to the bogey of state medicine. Here is a phrase around which has circulated a great deal of loose thought and emotion; in suggesting that it should be studied pro and con with clear-eyed detachment one need not, I hope, be under suspicion of favoring confiscation of medical practice by the Commonwealth. There are many ways of pooling scientific resources to the welfare of society without surrendering either initiative or personal relationship of physician to patient—which seem to be the two precious inheritances of our guild.

The teacher has in many ways a relationship to pupil comparable to that of doctor and patient; yet in the course of time and the growing complexity of society this function has largely ceased to be a private or individual tie and has come to be discharged under the State. The same kinds of arguments are going to be used by people generally with respect to medical service. When I say this I am thinking of medical service as a staple, not as a luxury. If experience should indicate that service can be furnished on a high level of effectiveness at a moderate cost through combinations of trained men, then it must be provided, or we shall be in the same fix as the Musician's Union.

State Medicine, which can be made to mean almost anything, but which we may assume for ordinary purposes to mean the provision of medical care and service by government to any of its citizens at cost, or above cost or free, may be gravely

inexpedient, but I for one am not sure that it is wrong in principle. In Iowa, obviously, it would be most undesirable as defined above, because of the abrupt economic dislocation which would be involved. We who are concerned with the teaching hospitals of the State are guarding meticulously against invasions of private practice. But some very interesting experiments are going on in places where expediency is not involved—experiments which should be watched with care and with open minds.

But would not such intricate organization—such a mechanization of practice, inevitably dehumanize the whole process? Would it not be taking the bloom off of something which gives a special meaning to the ministry of healing? I think not. The art of noble behaviour, someone has remarked, is not inconsistent with the practice of the scientific method; nor is it inconsistent with any form of the corporate practice of medicine. A look into any of the great public or private clinics of the country will show that if that kind of medical service is dehumanized, people like it.

I have a suspicion that there has been some sentimentalizing about all this which will not stand calm analysis. The need of gracious personalities in clinical relationships is as obvious in hospital wards as it is in private offices. Does anyone seriously question that a professor in the college of medicine is tender with his private clientele and cavalier with the poor folk who come constantly under his care; or that any of you deliberately deny the grace of sympathy and insight to any patient who cannot pay a fee? I shall go even further, and suggest that it makes no essential difference whether the physician is compensated by a fee or by a salary. Heaven forbid that the benign arts of healing should be replaced by an impersonalism however masterly; that interest and human kindness should give way to callous skillfulness. One mentions these things merely to emphasize their irrelevance. The charge that corporate, group or governmental medicine in the nature of the case does away with something essential and lovely in the doctor-patient relationship seems to me mushy.

Everywhere one chooses to look the new order in medicine is appearing—in pay clinics, in groups, in industrial hospitals and systems of hospitals, in provision by municipalities, states and nations for medical service to their dependents. The flux of highly individual business to highly organized business is neither easy nor comfortable, but the indications are that the change must be

made, and is being made. There is something inexorable about it.

The important thing for all of us is to have concerted, sane and cheerful thinking about the vexatious problems before us, and to work faithfully on solutions for them. The studies which are being undertaken by the Committee on the Cost of Medical Care are certain to be an important factor in the clarifying of this complex and delicate situation. The Committee's first function has been to gather facts, to group them — to analyze, tabulate, interpret. In that task they must depend not alone upon a small group of technical experts, but upon thousands of busy physicians, who can contribute something of value to the factual background necessary for their conclusions.

Above all these questions, highly controversial though they may be, should be divested both of mystery and malice, and viewed as impersonally as one would look upon a laboratory test. Only by such a mental attitude and by such a degree of unity of action are we likely to adjust our art and science to the changing order of our time and to meet the challenge of a progressive society.

MODERN FUNCTIONS OF A COUNTY MEDICAL SOCIETY*

By

WM. J. BURNS, LL.B.,

Executive Secretary, Toledo Academy of
Medicine, Toledo, Ohio

INTRODUCTION

Your Program Committee has been very kind in inviting me to Des Moines to give you a few slants upon our county medical society's work and problems, and upon some exceptional activities that have developed at first hand under our eyes. These pioneer steps have a growing influence on every individual medical society in the country.

At the outset, permit me to state that the Toledo Academy of Medicine is the medical society of Toledo and Lucas County, Ohio. There is but one medical society or unit in Toledo—the Academy of Medicine, which is a component part of the state and national societies. The Toledo Academy has four sections which meet on the various Friday evenings of the month. The second Friday is given over to the Section of Pa-

*Read before the Polk County Medical Society at its Annual Meeting of December 18, 1929. Mr. Burns has since resigned as Executive Secretary of the Toledo Academy of Medicine to assume a similar position with the Wayne County Medical Society of Detroit, Michigan.

thology, Experimental Medicine and Bacteriology; the third Friday to the Medical Section; the fourth Friday to the Surgical Section; the fifth Fridays to the Eye, Ear, Nose and Throat Section. The first Friday each month is devoted to the General Meeting of the Academy. Specialists clubs meet at other times, but all medical groups in Toledo are affiliated with and are an integral part of the Toledo Academy of Medicine. Before 1902, Toledo was not so fortunate. It had two medical societies, not always working in complete harmony. But in that happy year of 1902, a combination of these two groups, The Toledo Medical Society and The Lucas County Medical Society, was made and the new organization was given the conciliatory title of The Academy of Medicine of Toledo and Lucas County, to the entire satisfaction of all. Permanent good has resulted from this union.

To detail some of the activities of the Toledo Academy of Medicine, without boring you, let me give you a typical day at our desk in the Academy Building, with a few necessary interpellations.

A TYPICAL DAY

The Executive Secretary arrived at the office of the Academy of Medicine to find a generous pile of mail awaiting his attention. By 9:00 A. M., he had dictated letters to three citizens who had submitted questions on medical subjects. He answered that their inquiries would be referred to the Education Committee for reply, and would be published in the daily newspaper column at an early date; he had acknowledged the two applications for membership; he had thanked the New York pharmaceutical house for its new contract to advertise in the Academy Bulletin; he had sent a note of appreciation to the Better Business Bureau for its report on the "quack" who had recently opened an office on the East Side; he had requested the State Medical Board to proceed against this individual who was practicing medicine without a license. He had written the telephone company to eliminate the osteopath's name which appeared in the telephone directory under the heading: "Physicians and Surgeons M. D."

The telephone bell rang. It was a physician on the North Side who desired information on the Merchants' Credit Bureau. This doctor was told that the Academy of Medicine was a subscribing member of the Merchants' Credit Bureau which offered three distinct services to every individual member of the Academy; first, *credit ratings* on every patient who visited the doctor's office; these could be obtained in case a physician doubted the paying ability or paying inclination

of his patient; second, the *Delinquent Account Letter Service*, whereby a series of letters would be mailed by the Bureau to slow-pay patients to aid the doctor's collections; third, the *collection division* offered its dependable help to the physician who wished to have his older accounts adjusted or financed. The North Side member procured the telephone number of the Merchants' Credit Bureau to call and ask its assistance.

Then Dr. A. C. W.'s nurse visited the Executive office to ask for another copy of Bulletin No. 10 of the "Confidential List For Members Only." This confidential list, added to monthly, contains the names of over thirteen hundred people with whom Academy members have experienced unsatisfactory financial relations. (This is sometimes referred to as the "dead beat" list and of course is in code, to eliminate the possibility of lawsuits.) Dr. A. C. W. desired to keep the list permanently so that he could study it whenever a new and questionable patient appeared for service. A master-list is kept in the Academy office, but many doctors file their own individual lists each month.

FOUNDATION—GOAL OF \$300,000

Mr. Harry Dowd of the X Insurance Company dropped in the office to add another physician's name to the growing list of contributors to the Academy Foundation. This name brought the number to sixty-four—sixty-four Academy members who had each taken out a thousand dollar insurance policy making the Academy Foundation the sole beneficiary.

Here is a side light that deserves a bit more than passing notice. It is a tribute to the vision and altruism of Toledo doctors. Their plan deserves emulation by other medical societies in the country. The purpose behind it is the creation of a \$300,000 Endowment Fund for research. At first blush this seems like a large figure and one almost impossible of accomplishment. How the idea has captured attention and sold itself on its merits is illustrated by the fact that sixty-four doctors are now numbered on its bequest insurance list; in addition, several cash contributions and generous provisions in wills have been made. The interest from this Fund will be used strictly for research. The Foundation is to be administered by a Special Endowment Fund Committee and a Trust Company in true legal style. The principal is not to be distributed unless it exceeds expectations and reaches the million dollar mark; then ten per cent of the capital sum may be used annually for research.

Nothing more altruistic can be conceived than the creation of and contribution towards a Fund

of this sort by doctors. There will be no return to themselves. It is entirely a gift to the public for its better health and increased longevity. We all know there are still some unsolved problems in medicine. The toll from cancer, pneumonia, and tuberculosis is still on the increase. Much midnight oil has been burned in the attempt to penetrate the secrets of these three diseases. Who knows but what, from this Foundation, a Pasteur, an Ehrlich, or a Carrell may be developed. The idea is the establishment of a miniature Rockefeller Foundation with all the noble purposes and ideals behind such an organization.

Coming back to our day's work:

After Mr. Dowd's departure, a telephone call from Dr. M. W. A. was received by the Executive Secretary. The doctor was making out his income tax report. Could he, he asked, take as a deduction the legal expense incurred in fighting a malpractice suit which had been inflicted upon him during the past year. He was made very happy in the knowledge that this was an allowable deduction and he took down the exact citation in order that there would be no question concerning his report when same reached the income tax office.

Dr. M. A. C. visited the Executive Office with three short medical essays for publication in the Academy newspaper column, which is entitled, "Said by Toledo Doctors." This contributor was thanked, told that the Publications Bureau would look over his essays and forward them to the newspaper where they would soon appear. The visitor commented on the Popular Medicine movement which had been at work here during the past three years. He stated that his contribution was intended as an approbation of this good work.

The South Side League of Women Voters telephoned to secure a speaker for their meeting of the following month. They desired a talk on "Health and Sanitation." The lady was informed that the request would be placed before the Speakers' Bureau of the Academy and a doctor would be chosen for the assignment in plenty of time for announcements and printing of programs.

EDUCATION COMMITTEE WORK

Reference to these two incidents calls attention at once to the Education Committee work. This has developed from small beginnings into a very influential organization. It was my privilege to see it throughout its numerous stages. For years back, several of the more foresighted members of the Academy realized the value of a program of Popular Medical education. It remained simply

to put it into being. Numerous meetings were held over the luncheon table to discuss ways and means. At one notable meeting back in 1924, the officers decided finally that problems dealing with clinic abuse, contract practice, unethical conduct, fraudulent advertising, quackery, misinformation of the public on matters of health, and a host of other things could be best met by broadcasting first hand the *doctors' viewpoint* on these medical matters. This was a departure from the old notion of keeping silence on such matters from a mistaken idea of "ethics." This position is hardly tenable. The distinction has well been made between "advertising," which is closed to the physician as an individual and "publicity," which is open to the profession as a whole. Not all the members, however, were sold on the soundness of the idea. You gentlemen probably will encounter the same condition in your own ranks; yet it is clear that your responsibility as guardians of the public health demands that you take more than a passive interest in such matters. In addition, your acceptance of this obligation will result in increasing your financial as well as your scientific revenue.

The officers of the Toledo Academy decided definitely on the necessity of forming an Education Committee to look after these matters in point. Such a Committee would bring about a better relation between the public and the profession, which would be of advantage to both. Then, about this time, came the Saturday Evening Post editorial entitled "Good News Suppressed," which acted as a further incentive towards the creation of such a Committee. The Post shouted to its millions of readers: "Doctors are bond slaves of a vocabulary drawn from the dead languages. Our physicians and surgeons are fairly boiling over with important information which they desire to communicate to the general public; but somehow they lack the simple racy English in which to get it over or the sense of form and accent which would make it interesting and attractive. The enlightened physician is fully alive to the educative powers of the newspaper and periodical press but he does not know how to use the mighty engine he has so long despised."

The effect of this article is obvious. In our narrowed lives, we fail often to get proper perspective. An opinion here and there which does not come from a particularly eminent source may not sway us, but when such a well-known periodical as the Saturday Evening Post took up the cudgels and berated the medical profession with such a pronouncement, it behooved it to take stock.

DAILY NEWSPAPER COLUMN

The beginning of Popular Medical Education in Toledo was made early in 1926 with weekly health articles in two of the leading papers. The Committee's plans were visionary. It had no precedent to follow. Few realized its possibilities. The first year was spent mainly in building up experience and gaining contacts. It can truthfully be said that it sold the idea of honest guidance and authentic information in medical matters to the newspapers and the public. This was a worth-while accomplishment. But the committee quickly realized that the infrequency of appearance of its articles would lose force. Plans were set afoot to publish a daily medical article. This was a radical innovation in newspaper circles. True it is that daily newspaper articles, treating on medicine, had appeared previously in syndicated form. These, however, reflected only individual opinion in medicine. The "Said by Toledo Doctors" column, with its daily article, attempted to reflect the accepted opinion of the bulk of the medical profession. In this respect, it has pioneered.

On February 27, 1927, the new column was inaugurated. During the next two years, a daily article was printed, followed by a "Question Box." Academy members submitted articles to the Education Committee which revised and edited them to fit into the program. Numerous instances occurred in which certain articles were found unsuitable for publication. This, because they emphasized too strongly pet theories at variance with general opinion. It is desirable to secure articles from as many of the members as possible. A series of articles for instance dealing with pediatric problems, another series dealing with ear, nose and throat problems, another on orthopedics, and so on, produce a better program and affect more of the reading public. Where the interest of the Society permits such a plan, it is of course ideal. Where failure of cooperation interferes with such a course, this should not discourage the fulfillment of the program. In every society a few enterprising men can be found to substitute for the uninterested.

It must be remembered that these articles, while authoritative and truthful, are not written for the medical profession. They may not therefore be exhaustive of a subject. They are written for the public. They should be snappy and touch only highlights. It is better to drive home a few salient points that will stick, than a wealth of details and data that will be uninteresting and soon forgotten. Self-diagnosis and self-medication

should be discouraged. The motto throughout should be: "See Your Doctor First."

SPEAKERS' BUREAU

Realizing that the Speakers' Bureau was a necessary adjunct to the work of the Publications Bureau, this department was formed in 1927. For the first half year it worked sporadically. But the profession realized that the Speakers' Bureau was a powerful and valuable arm in bringing the medical man in direct contact with the public, so a concerted effort was made to boom this feature. The result was that during 1928 and the first six months of 1929, the period of its greatest activity, the Speakers' Bureau sent out an average of ten lecturers each month to address lay organizations, civic clubs, etc. The public seems to be hungry for information dealing with its health. These two departments, the Publications Bureau and the Speakers' Bureau, have a far-reaching effect. They are doing more than all the preaching in the world to counteract the propaganda of the quack and the pseudo-medical man. They are establishing the doctor in the hearts of the people. More important: they make patients proud of their own doctor, and result in keeping more people at home for their medical treatment.

COURTESY

Dr. B. L. D., a member of the Visiting Sick Committee of the Academy, telephoned to inform the Executive Office of the illness of Dr. H. M. Thereupon, a sick card was dispatched to Dr. H. M., the Doctors' Service Bureau was instructed to call his residence daily for reports, and his name was inserted among the Bulletin notes.

At 11:45 A. M., the Executive Secretary departed for the meeting of the Board of Trustees, held over a luncheon table. At this meeting, the Board attended to the various details of approving bills, studying reports, reclassifying members, etc.

The question of syndicating the medical articles which have been appearing in the daily newspaper was discussed and approved. Greater medical instruction of the public would result from this business-like move.

A post-graduate course of ten days, to be given by an internationally known authority, was also approved.

The Chairman of the Clinics Committee was called in to submit his report on conferences with the social service agencies of the city. This doctor stated that representatives of every clinic had been present at all discussions. Further, that an agreement had been formulated whereby the basis of admission to free medical clinics is a family budget computed in each case according to the

income of the family and its minimum requirements as determined by a conservative standard budget worked out by the committees at these conferences. The Board of Trustees approved this report and plan, with the recommendation that the standard family budget be revised each year to meet changing conditions.

The last item taken up by the Board of Trustees was the matter of malpractice suits resulting from charity cases. After a lengthy discussion, a special committee was appointed to get in touch with city officials and representatives of the City Community Chest with a view to placing before them the seriousness of this situation and the ultimatum that, unless the city or some philanthropic organization assumed the responsibility for the defense of such charity malpractice suits, members of the Academy of Medicine would refuse to donate further free service to the City. Another suggestion to aid in the elimination of malpractice suits was made: That a Council of seven composed of two physicians, two dentists, two lawyers, and a District Court Judge, be appointed to pass on all malpractice cases before they were brought to suit. If this plan were accepted by the Bar Association, it would apply to perhaps 80% of the lawyers of the county.

After the Trustee's meeting, the Executive Secretary returned to his office at 2:00 P. M.

The afternoon mail brought a letter from a woman who desired a list of the "best plastic surgeons" in the United States. (We get these often!) Also letters from two members of the Ohio Legislature who pledged their support towards defeating a bill inimical to the good health of the public. These were in response to a resolution passed unanimously by the Academy members at the annual meeting. The mail also brought a letter from Milwaukee asking for information on the organization of a physicians' service bureau. Finally three members mailed in changes of address.

The stenographer was called in to take the minutes of the Trustees' meeting and answer the various letters just received.

JUDICIAL COOPERATION

At 2:45 P. M., Judge M. O. L., of the Municipal Court, dropped in the office to outline a case which had appeared before him that morning. A specialist had been called in for consultation on a case by the attending physician. This case was a birth injury in a newborn child. Later, the patient's parent refused to pay the reasonable bill on the ground that she had not given explicit instructions to call in the consultant. The question was: Did the attending physician have implied

authority to call in the consultant? Judge L. requested that the Academy of Medicine furnish him with a legal opinion or brief on this matter so that he could render a verdict which would be just and equitable to all parties. The Executive Secretary thanked the Judge for his consideration, and after his departure pulled down Corpus Juris for a little research work on this interesting question. It might be added that precedent was found which resulted in the specialist winning the case.

The Chairman of the Library Board dropped in at 4:00 P. M. to check over the list of Journals to be bound. A discussion ensued on the general situation and finances of the Library for the current year.

PHYSICIANS TELEPHONE EXCHANGE

At 5:00 P. M., the Director of Doctors' Service Bureau arrived at the Academy Building for the monthly meeting of the Service Bureau employees. At this gathering, the Director and assistants discussed the various problems that had arisen during the past month. Ways and means to improve the service were suggested. These meetings imbue the operators with a certain sense of responsibility and aid in keeping up their enthusiasm, a most necessary element for success.

To treat the Doctors' Service Bureau more at length: This Bureau has been running twenty-four hours per day since August 1, 1925. It was started with a campaign for members. We had approximately 100 subscribers when we began operations. This had increased gradually to 160 (close to 50% of our active membership) and this is believed to be the saturation point. The subscribers are assessed \$3.50 per month, payable quarterly, for this extra service. It is owned and controlled by the Academy, with the Board of Trustees acting as a supervising committee, but it is operated as a separate entity. The Bureau is not incorporated, but is classed as a department of the Academy, which is incorporated not for profit. Doctors' Service Bureau has its own employees (four) and its own system of bookkeeping; the Bureau has nothing to do with the general funds of the Academy of Medicine. A constitutional proposal to make the Bureau fees part of the annual dues of the Academy (thereby increasing the dues of senior active members from \$35 to \$55 per annum) was defeated at the last annual meeting. The majority of members seemed to feel that this was an extra service and should be paid for exclusively by those doctors deriving the special benefits therefrom.

(We have eight membership classifications in Toledo: 1. Senior Active Members, \$35.00 per

annum; 2. Junior Active Members, \$15.00; 3. Privileged Members, \$15.00; 4. Emeritus Members, \$10.00; 5. Non-Resident Members, \$5.00; 6. Associate Members, \$5.00; 7. Interne Members, \$2.00; 8. Honorary Members, no dues. The dues were raised in 1925 from \$10.00 to \$35.00 for Senior Active Members. It was prophesied that the loss in membership would be great. The fact is that the membership has increased, and those few individuals who dropped out in 1925 are back again in the fold. They are receiving far more for their \$35.00 now than the proportionate benefits they derived from their \$10.00 dues in the old days.)

The main object of a physicians' service bureau is to be a connecting link between the doctor and his patients. Most of our Bureau's work consists in patients calling for their family physician or making appointments with a specialist, which is desirable business. We do get a share of emergency calls but these are necessary evils. Often there is no remuneration to the doctor for such work. But such a bureau, being a quasi-public agency, must accept the good with the bad.

METHODS OF ADVERTISING BUREAU

Physicians use verbal and printed advertisements to convey to their patients that they can be obtained at any time through the medium of Doctors' Service Bureau. They mail out dodgers with their monthly statements. In addition, we try to have every pay-telephone in the city covered by placards. Doctors have placards in their waiting rooms also. Newspaper advertising has been tried, but it is very costly, and results are somewhat doubtful. One feels that it appeals to that element which we are trying to avoid. The *doctor* is the best medium of advertising, and he reaches the best people. However, newspaper advertising may be good at the time of inaugurating a service bureau, just to put over the name and telephone number. A new Bureau should try to get a number which can be remembered easily by morons (they will be very good customers of a doctors' bureau). Main 1234 is ideal. We had to accept Main 2176, but attempted to popularize it with this tid-bit: "Are you 21? Do you remember the Spirit of '76? Then you should remember Main 2176."

Some doctors keep in touch with the Bureau every two hours. Others are careless. Naturally, the former receive better service, as our operators are able to locate them very easily. We are blessed with a corps of loyal, enthusiastic assistants. Let me repeat that, without constant enthusiasm on the part of the employees, the Service Bureau would be lost. Each assistant must

know every subscriber's idiosyncrasies and act accordingly. You must admit it is quite a nerve-wracking job.

TELEPHONE EXTENSIONS

Forty-six of our subscribers have installed direct telephone extensions from their offices or residences (or both) to the Doctors' Service Bureau offices. We have a special switchboard (called a "Stopboard" by the telephone company) which combines our main trunk lines and these extensions. Every time the telephone rings in the doctor's office or residence, we receive a light signal in our office. If the doctor fails to answer, we take the call and hold the message until the doctor returns. In this way, no business is lost. It is a boon to the younger man who cannot afford the expense of even an eight-hour office assistant, not to speak of twenty-four hour telephone coverage. The subscriber pays the telephone company a sum for this extension equal to the aerial distance from his office or residence to our Bureau office. Most of the men pay about \$5 per month to the telephone company. Others, living greater distances, pay more. I feel that we shall have sixty such extensions before the arrival of spring.

We have our Bureau cards in the Toledo factories. When they have an accident, they call us and we send the doctor who does the industrial work for that particular plant. We keep a list of industrial surgeons serving factories, as well as lists of all the doctors and specialists of the city. We have many inquiries for "skin specialists," eye, ear, nose and throat men, and what not. We merely read the list of doctors to the inquirer, and let him choose the physician to whom he wishes to go.

The operation of a physicians' service bureau brings with it loads of grief. Just try to please everybody! But it is worth all the trouble. Our Bureau has helped to pep up our Academy and make it the center of medical activity in our city. It has helped to unify the doctors, which seems to be a problem in every city. The advantages seem to outweigh, by far, the troubles. The people of Toledo come to the Academy of Medicine for all medical and miscellaneous information, including opinions on quacks, and we feel that the Bureau has been largely the cause of this decided advantage.

Our experience in Toledo has proved to us that a physicians' service bureau should be owned and controlled by the doctors themselves, and NOT by an outside agency. It is a case of the doctors running their own business, which is very

important. Before a medical society begins to operate a bureau, it should buy out or amalgamate with all medical service bureaus in the city. There should be no competition. If there are two or three agencies in existence, confusion on the part of the public, and constant annoyance to the doctors will be the inevitable result. There should be but ONE bureau, under the control of the medical society.

CONCLUSION

You have heard a few of the activities in which an Executive Secretary is engaged. Without a man responsible for these duties, the bulk of this work must be borne by some member of your society. A physician has not the time to give from his practice to a thorough handling of it. Some things must be glossed over and slipped. Perhaps those things of most concern to you may be in this number. In any case, admitting the doctor's full capability and usually he is very capable, it is not just to saddle detail work of this kind on his shoulders. More than that, it will mean a failure to progress along the modern lines of Education and Service which you all desire. It becomes absolutely necessary to intrust such matters to one who can give them his whole time and undivided attention. Let the policy of the organization be dictated by the officers; the details of its execution can be handled by a full-time man. Such a manager is styled an Executive Secretary. I have been told that the county medical societies throughout the country which have decided upon a program of Service and have employed an Executive Secretary to insure its accomplishment seem to be outstanding. I venture the prediction that every Society of prominence will have an Executive Secretary in the very near future. The investment will pay rich returns, economically and professionally.

POPULAR SCIENCE MONTHLY SERVICE PRIZE

An annual prize of \$10,000 and a medal has been established by Popular Science Monthly to be awarded beginning this fall under the auspices of the Popular Science Institute to the American citizen who, during the preceding year, has been responsible for the scientific achievement of greatest potential value to the world. The first prize will be conferred in September by a committee of twenty-four scientists representing institutions throughout the United States. All scientific workers, professional and amateur, academic, and commercial, are eligible for the prize. The award was created to stimulate research especially along practical lines.

THE INFLUENCE OF THE INGESTION OF FIFTY GRAMS OF GLUCOSE ON THE BLOOD SUGAR IN HEALTH AND IN CERTAIN PATHOLOGICAL CONDITIONS*

E. J. MAGERS, Ph.D., Iowa City

One of the most valuable laboratory aids in the diagnosis of conditions involving deranged carbohydrate metabolism, is the glucose tolerance test. This test consists in measuring the height type and duration of hyperglycemia following the ingestion of a certain amount of carbohydrate. One hundred grams of glucose is the most common test load (Table I), altho 1¾ grams per kilo of body weight has also been used. In 1922, Beeler, Bryan, Cathcart and Fitz¹⁷ reported that one hour after the ingestion of 100 grams of glucose by 9 subjects without evident gastric disease, from 26-68% of the glucose was left in the stomach when the blood sugar was returning to normal. Since it was apparent that the response during the first hour was due to the absorption of but 32-74 grams of glucose, the ingestion of 100 grams would seem to be an unnecessary load. This amount has been found difficult to take and produces nausea in many patients. John¹¹ has demonstrated that nausea markedly changes the blood sugar curve. These observations led to the adoption in 1923, of the 50 gram glucose load for glucose tolerance tests in this laboratory. The use of the 50 gram load and finger blood for blood sugar estimation has so simplified these tests that it was thought that it might be of value to report observations on blood sugar curves when these methods were used thruout and to compare the curves obtained with those already reported in the literature when other methods were used.

In analyzing blood sugar curves the parts which have been found to be most significant are (1), the fasting blood sugar level, (2) the height and time of the maximum hyperglycemia and (3) the time at which the blood sugar returns to normal. These three points as reported by other investigators are given in Table I. Only two give the normal fasting level over 120 mg. percent the average range being from 80-120 mg. percent. The height to which the blood sugar may rise and still be considered normal is much more questionable. Of those listed in Table I three observers give the maximum normal peak over 200 mg. percent, but with the majority it lies between 140 and 180 mg. percent. The work

*From the Laboratory of Pathological Chemistry, University Hospitals, State University of Iowa, Iowa City.

of Foster¹⁴ shows that this value is dependent on the source of blood used, the capillary blood giving higher values than venous blood. (Table I). The time of the normal peak has been found by most investigators to be 30 minutes after sugar ingestion, with a range of 15-60 minutes. Altho there is considerable variation, it is seen from the table that most investigators believe that the blood sugar should again be within normal limits in 2-3 hours.

There are in addition to the above standards for comparing blood sugar curves certain factors which may influence one or more parts of the curve which must be taken into consideration.

of the kind of blood used has been studied by Foster¹⁴ who compared the sugar curves obtained when finger blood and venous blood were drawn simultaneously from the same subjects during glucose tolerance tests. He found that the fasting samples gave almost identical values, but that after glucose ingestion the finger blood values were consistently higher and that they were longer in returning to normal.

(4) *The previous period of fast:* That the length of the fast before the test altered the sugar tolerance as evidenced by the blood sugar curve was shown in some experiments with rabbits²¹. It was observed that the tolerance decreased as

Table I. Normal Blood Sugar Curves

Reference	Author	No. of Cases	Load (grams)	Source of Blood	Method of Analysis	Fasting range (mg. percent)	Range of Peak (mg. percent)	Time of Peak (min.)	Return to Normal (hrs.)
(1)	Jacobson	14	100	Capillary	Bang	83-128	127-220	30	1 3/4
(2)	Hopkins	6	100	Capillary	Bang	65-101	149-157	30-120	2-3
(3)	Cummings & Piness	58	100	Capillary	Lewis-Benedict	44-120	-204	60	2
(4)	Denis, Aub & Minot	16	100	Vein	Lewis mod. of Meyers-Bailey	90-120	-140	60	2-3
(5)	Hamman & Hirschmann	6	100	Vein	Lewis-Benedict	70-100	100-150	20- 90	3/4-3 1/2
(6)	Janney & Isaacson	19	1 3/4 per kg.	Capillary	Epstein mod. of Lewis-Benedict	87-120	123-162	30	2
(7)	Strouse	8	100	Vein	Lewis-Benedict	60-120	-145	30	2
(8)	MacLean & de Wesselow	50	50	Capillary	MacLean	90 av.	160-170	30- 60	1 1/2
(9)	Spence	6	50	Capillary	MacLean	90 av.	135-210	30	1 1/2
(10)	Goto-Kuno	53	100	Vein	Meyers-Bailey	60-116	170-180	40- 60	3
(11)	John	16	100	Vein	Mod. of Benedict	60-140	-230	30- 60	3
(12)	Olmstead & Gay	45	1 3/4 per kg.	Vein	Mod. of Benedict	80-120	140-190	60	2-3
(13)	Gray	300	50-100	Both	Various	90-160		30- 60	2-3
(14)	Foster	7	100	Vein	Folin-Wu	93-105	-170	15- 45	1-2
	Foster	7	100	Capillary	Folin-Wu	93-105	-214	15- 45	1 1/4-2
(15)	Rabinowitch	445	100	Vein	Lewis-Benedict	-120	-180	30	3
(16)	Hale-White & Payne	11	50	Capillary	Folin-Wu, micro	60-120	-200	30	2

(1) *The Load:* Gray¹³ found that decreasing the amount of glucose ingested, increases the length of time before the blood sugar falls. The average peak of the blood sugar after 50 and 100 grams of glucose was found to be the same, but with 50 grams the descent came later and with a sharper drop.

(2) *The method of sugar determination:* Dugan and Scott¹⁸ compared Benedict's old method, the Folin-Wu, the Hagedorn-Jensen and the Shaffer-Hartman methods in recovering added sugar from the same blood. They found that all methods gave results within 3 mg. except the Shaffer-Hartman, and that, that one did also when a corrected table for calculations was used. Modifications of the Shaffer-Hartman¹⁹ and Benedict's²⁰ methods have been found to yield lower results since they are believed to respond only to the reducing action of glucose.

(3) *The source of the blood:* The influence

the fast increased, and that the type of food eaten 18 hours before the test may also alter the results.

(5) *Nausea:* With large doses of glucose nausea has been found to be an important factor. John¹¹ has demonstrated that a distinct flattening of the curve may occur with nausea.

(6) *Pain:* It has been shown that pain may increase the sugar content of the blood¹⁸. Many authors^{5,13}. believe the finger prick method more painful than veni-puncture and that the higher values obtained from finger blood are attributable to pain rather than to the fact that finger blood is higher in sugar than venous blood after glucose ingestion. Hale-White and Payne¹⁶ however emphasized that all but one of their patients found the veni-puncture the more painful. This is in agreement with our six years' experience with this method.

(7) *Exercise:* In a study of the influence of

exercise on the blood sugar curve¹⁶ it was found that walking a mile in 13 minutes before the fasting blood sugar was taken produced a rise in the blood sugar to 144 mg. percent and that 50 grams of glucose failed to increase the blood sugar when the exercise was continued during the test.

(8) *Age*: It has been demonstrated¹⁶ that as age advances the blood sugar curve has a higher rise and a slower fall; that between 50 and 70 years the normal peak may be 220 mg. percent; between 70 and 80 it may rise to 240 mg. percent.

Table II. Blood Sugar Curves in Normal Subjects													
Case No.	Sex	Age	Wt. kg.		Blood Sugar (mg.%)								Urine Sugar
			0	½	1	1½	2	2½	3				
1	M	9	29	82	155	90	58	68	40	77	0		
2	F	26	58	109	172	149	126	107	105	100	0		
3	M	26	62	103	140	123	102	88	103	93	0		
4	M	26	80	84	175	145	81	60	58	69	0		
5	F	26	50	84	161	123	75		56		0		
5	F	28	50	110	155	120	123	77	102	96	0		
5	F	29	50	120	137	165	175	155	149	134	0		
5	F	29	50	118	140	92	110	110	125	114	0		
5	F	29	50	88	145	112	122	112	66	74	0		
6	F	29	53	74	106	116	69		61		0		
7	M	30	78	129	175	129	106	103	110	114	0		
8	F	30	69	106	150	146	149	100	95	94	0		
8	F	30	69	117	145	122	82	96	86	91	0		
8	F	30	69	110	190	120		62	66	75	0		
9	F	30	54	83	190	151	110	76	66	74	0		
10	M	44	65	95	155	129	117	75	77	86	0		
10	M	44	65	108	172	128	117	108	83	90	0		
10	M	45	65	110	154	149	145	133	105	107	0		
11	M	53	62	127	137	126	104	84	106	104	0		
12	M	37	59	97	176	165	140	111	85	96	0		

The curves here reported were done using the same technic thruout and eliminating the influencing factors as far as possible. With the exception of the normal cases and the moderately severe diabetics the subjects for these tests were not selected but taken as they were sent to the laboratory.

Experimental:

The subjects came to the laboratory in the morning after a 14-15 hour fast when finger blood for the determination of the fasting blood sugar level and a specimen of urine were obtained. They were then given 50 grams of C.P. glucose dissolved in 300 cc water, as this was the concentration found by Beeler¹⁷ to pass most quickly from the stomach. This amount of glucose was never found nauseating so that the addition of lemon juice was optional. After the ingestion of the glucose, finger blood was taken every half hour and urine obtained each hour for a three hour period.

The blood sugar was determined by means of the Boyd-Gibson micro-modification of the Folin-Wu method²². Urine sugar was estimated qualitatively by Benedict's method. Urine sugar is reported as positive if it appeared at any time during the test.

Blood sugar curves were run on a series of normal subjects and on a few moderately severe diabetics, but the majority of the curves reported are on mild diabetics, and on cases in which the diagnosis was at first questionable.

Results:

In all 123 sugar tolerance curves were run on 105 individuals. Assembled data on all subjects analyzed according to the 3 salient parts of the sugar curve are given in Table III. Curves typical of each group studied are given in Chart I.

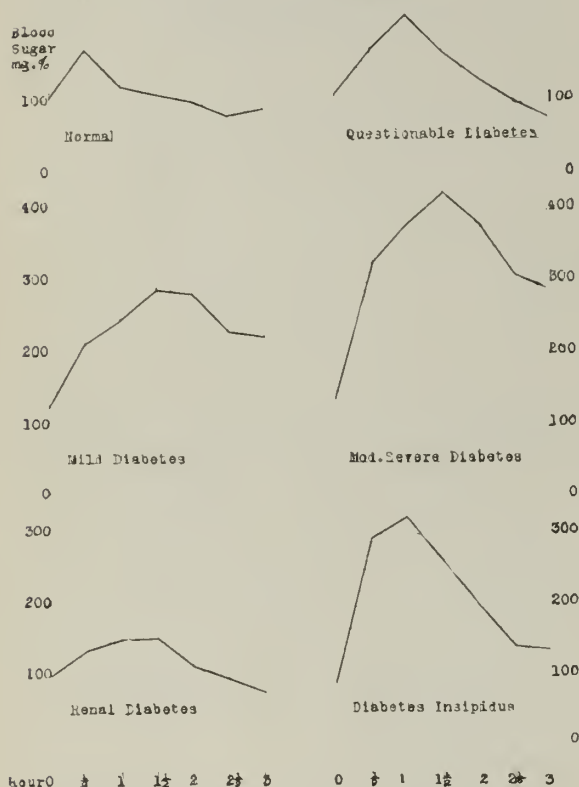
Normal Cases: Twenty curves on 12 normal subjects are given in Table II. One curve of Case 5 is omitted from the discussion as it is distinctly abnormal altho curves on this subject for 3 years had been consistently normal, as were subsequent ones. In the remaining 19 curves the fasting level of blood sugar ranged, with one exception, from 74-120 mg. percent. The peaks of the curves ran between 116 and 190 mg. percent, which is well within the limits reported when finger blood was used (Table I). All but one curve returned to normal in 2 hours and all 19 curves dropped below the fasting level in 2½ hours. The 3 investigators who used 50 grams of glucose and finger blood gave 1½-2 hours as the duration of hyperglycemia. Others using 100 grams and venous blood state that the blood sugar should return to normal in 2-3 hours. Since it has been shown that the sugar in arterial blood drops slower than in venous blood it would seem reasonable to extend the normal limit of hyperglycemia to 2½ hours.

A comparison of these normal curves with those of certain pathological cases is given in Table III. The normal standards used in analyzing these

Table III. An Analysis of Blood Sugar Curves													
No. of Curves	Normal Cases												
	Questionable Diabetics	Mild Diabetics	Mod. Severe Diabetics	Renal Diabetics	Diabetics Insipidus	Hyperthyroidism	Simple Goitre	Polygland Dystrophy	Addison's Disease	Arthritis	Carcinoma		
19	9	33	7	12	6	10	5	7	4	6	4		
Fasting Level													
Below 120 mg. %	17	6	17	0	12	2	6	5	6	4	5	3	
Above 120 mg. %	2	3	16	7	0	4	4	0	1	0	1	1	
Height of Peak													
Below 200 mg. %	19	4	0	0	11	1	3	4	6	3	2	2	
Above 200 mg. %	0	5	33	7	1	5	7	1	1	1	4	2	
Time of Peak													
½ hour	18	2	2	0	3	1	5	2	2	1	2	1	
1 hour	1	6	13	2	4	2	4	3	2	2	3	1	
1½ hours	0	1	13	2	5	1	1	0	3	0	1	0	
2 hours	0	0	3	3	0	2	0	0	0	0	0	0	
2½ hours	0	0	1	0	0	0	0	0	0	0	0	0	
3 hours	0	0	1	0	0	0	0	0	0	0	0	1	
Normal Level Reached in													
1½ hours	15	0	0	0	2	0	2	1	1	3	0	0	
2 hours	3	1	0	0	3	1	2	0	3	0	1	1	
2½ hours	1	6	2	0	6	0	4	2	1	0	3	1	
3 hours	0	1	6	0	0	0	1	2	2	0	2	0	
Urine Sugar	0	5	31	7	12	2	8	0	0	0	1	0	

curves are as follows: for the upper normal fasting limit, 120 mg. percent; for the normal maximum, 200 mg. percent or below; and for the duration of hyperglycemia, $2\frac{1}{2}$ hours or less. If sugar appeared in the urine during the test it was also tabulated.

CHART I TYPICAL BLOOD SUGAR CURVES



Diabetics: In a series of 33 curves in 29 mild diabetics, classed as such because no insulin was needed for management on a maintenance diet, blood sugar curves characteristic of diabetes¹³ were obtained, i. e., a slow rise, a late and high peak and a delayed return of the blood sugar to normal.

Seven cases of *moderately severe* diabetics who required up to 30 units of insulin a day for maintenance diet, reacted in a similar manner but more markedly, than the mild diabetic. All cases excreted urine sugar during the test.

Curves on 9 cases were classed as questionable because of the absence of symptoms with only a slightly increased hyperglycemic area, or because of a normal curve in the presence of suspicious symptoms. On analysis (Table III) they appear between the curves of normal and mild diabetic cases. Repeated curves and continued observation would be advisable in these cases.

Renal Diabetics: Aside from the constant glycosuria the most characteristic finding in the 12

curves on 6 renal diabetics was the delayed peak, the height of which was within upper normal limits. Altho the reports in the literature are not constant, Gray¹³ supports those who assert that there is a relative frequency of hyperglycemia.

Diabetes Insipidus: Most of the cases of diabetes insipidus gave high and sustained curves after glucose ingestion. This finding is supported by several published curves^{15, 23}, but as in these cases the high curves are not constant.

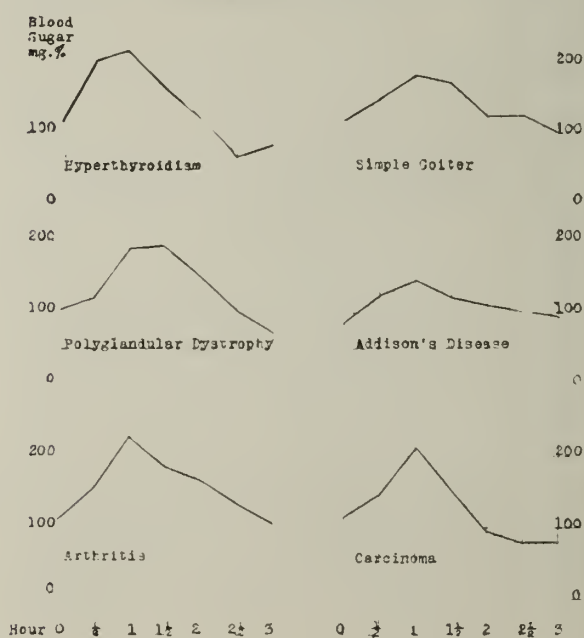
Thyroid disturbances: Ten curves on cases of *hyperthyroidism* showed a higher fasting level, higher and later peak and a slightly longer period of hyperglycemia than the normal. No relationship was observed between the basal metabolic rate and the type of curve obtained. These curves are in general agreement with those reported when varying amounts of glucose were given^{3, 5, 13}. Cases of simple goitre gave normal but slightly delayed curves.

Polyglandular dystrophy: Seven cases diagnosed as polyglandular dystrophy gave curves which had a tendency to a delayed rise and slow fall. Reports in the literature are conflicting but Gray¹³ believes there is less difference from the normal than is usually expected.

Addison's disease: The curves of 3 of 4 cases of Addison's disease were quite flat. The fourth which was high was complicated with pronounced pulmonary tuberculosis.

Arthritis: In confirmation of the work of others^{24, 25}, 4 of 6 cases of chronic arthritis were

CHART II TYPICAL BLOOD SUGAR CURVES



definitely above normal as shown by the high peaks and delayed return to normal.

Carcinoma: Four cases of carcinoma involving the gastro-intestinal tract were distinctly abnormal. Two showed a slow rise while the other two showed early but high peaks. These are similar to published curves on the same type of cases^{12, 26}.

Summary:

By means of the 50 gram glucose load and finger blood methods, blood sugar curves were obtained in normal and pathological cases which were similar to those reported in the literature when greater loads and different methods were used. It has been found that curves thus obtained are just as significant as those obtained by older methods and that the procedure is more practical for clinical use.

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INDUSTRIAL CORNEAL INJURIES*

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In a discussion of Industrial Corneal injuries, or Traumatic keratitis, it is obviously impossible to go into detail as to such injuries. The multitude of industrial pursuits in which the cornea may be injured, either as a result of the character of the work done, materials used, manner in which the occupation is followed, etc., makes this impossible in a short discussion, and probably could not be done in volumes, if each possible lesion were taken up and discussed in detail.

The literature for years has been full of the reports of unusual ocular injuries occurring in the legion of pursuits of which American industry is made up, also with the advancement of science and industrial methods new and unforeseen substances, conditions, etc., are constantly arriving which call for new and original methods of treatment. Probably the greatest benefit that may be derived from a paper of this sort before a group of ophthalmologists, is a free and frank discussion by the listeners, as a man in one section may be handling injuries commonly, that are not seen in the practice of others. They have probably been forced to work out lines of treatment, that by experience are efficacious in the line of injuries that they are called upon to treat, for such lines of treatment are not to be found in text-books and are not mentioned in the centers of clinical instruction.

In dealing with industrial corneal injuries, an ophthalmologist is called upon to diagnose and treat, (1) Injuries which come direct to him, (2) Injuries which have been given first aid and then referred to him, (3) Injuries which have been treated by some one else, as the general practitioner or a company doctor, and then referred to him because of lack of progress or complications. He is also called upon to see cases referred by industrial insurance companies, attorneys, cases as individuals, etc., for examination and advise as to the extent of present or future visual loss, impairment of earning power, because of loss of vision, pain, etc., all perhaps to be aided and determined with his help and that of the Industrial Commissioner.

Corneal injuries or traumatic keratitis may be roughly classified into:—

(1) Foreign bodies in the cornea, and conditions resulting from same, as simple ulcer, infected or advancing ulcer.

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- (2) Abrasions or Erosions of the cornea with loss of corneal epithelium or substantia propria.
- (3) Punctured, incised, or lacerated wounds.
- (4) Burns and chemical injuries.

With regard to foreign bodies it is sufficient to say that the essential elements in diagnosis are (a) history, (b) good illumination, direct and oblique, (c) magnifying apparatus, at least a loupe and at times the corneal microscope, (d) the stains are sometimes of value as fluorescence, methylene blue, etc., in cases of transparent foreign bodies, such as spicules of glass.

Treatment consists of removing the foreign body and the prevention of infection. The method of removing the foreign body depends upon the nature and depth of it, the idea being to remove same with as little damage to the cornea as possible. For this purpose is required, again, (a) anaesthesia, either local or general (b) cleansing of the conjunctival sac with a mild antiseptic solution, (c) Good illumination, both direct and oblique so that the foreign body is clearly visible, (d) Fixation of the eye, either by the voluntary co-operation of the patient, or by an eye speculum and forceps applied to the muscles, (e) Aid to vision by the loupe, if the particle is minute, (f) Proper instruments, always sterile, there being a great variety for this purpose, and the operator's choice depends on the foreign body and his personal preference. To me the simpler ones are most efficacious and the electrical illuminated ones are more or less clumsy. I depend upon a concentrated beam of light, adjusted to a small brilliant spot, about the size of the cornea, usually coming at an oblique angle. A steel instrument if carefully used is preferable to a splinter of hard wood, etc., because we can be sure it is sterile. If the foreign body is large, entering deeply at an oblique angle, the cornea may be split with a knife. If electro magnetic and deep it may require the giant magnet, using the lines of force along the tract of entry. Children, of course, should be given a general anaesthetic.

Again, each foreign body is a problem to itself. When the corneal epithelium, which is highly resistant to infection, is broken by a foreign body, there is ever present the danger of infection of the underlying, less resistant, corneal substance, and it is always well to be on the side of over care rather than otherwise. In our practice we treat every break of corneal epithelium as a possible ulcer with routine irrigations of saturated boric acid solution followed by 40% argyrol, until the break in corneal epithelium is healed. This may be a matter of hours, or days, or even weeks. If infection occurs, atropine 1%, dionin 5%, and

possibly 1% optochin, is added. It is usually more comfortable to the patient to have the eye closed with a dressing following a lesion of the cornea, until it is nearly healed, as the lid moving over the surface gives the sensation of the intruder still being present. If we know the foreign body is probably an infected one, as a chip of bone during a mastoid operation, etc., the wound is immediately cauterized, etc., as though an ulcer was already present. The tear sac and conjunctiva should be routinely examined for infection in all cases. On completion of the removal of the foreign body, its site must be carefully examined for deposits of rust, etc., and if found present, the site gently curetted until clean and transparent. If the foreign body is non-metallic and deep, being in danger of being pushed through into the anterior chamber by manipulation, it may be advisable to introduce a flat object, as a corneal spatula, into the anterior chamber behind it, through a suitable incision.

Abrasions and erosions of the cornea, it is sufficient to say, should be treated as potential ulcers until healed. There is a tendency in extensive abrasions, for the cornea to break down at intervals, starting with small bleb-like lesions on the surface, with considerable cloudiness of the cornea. This form of relapsing keratitis is usually treated as an infected ulcer, and there may be secondary complications, as a severe uveitis, or a marked increase in tension. I have found it necessary to do a filtering operation, such as a iridencleisis in some of these cases. There is usually too much congestion in the eye to make a trephine a satisfactory procedure.

Punctured, incised, or lacerated wounds are treated according to depth, extent, and complications present. The wound is carefully cleansed, extruding materials removed, edges approximated and sutured, using fine silk with gold plates, or reliance placed on a conjunctival flap.

Burns and chemical injuries are treated according to their nature. The cornea usually receives its maximum injury at the moment of contact with the heat or chemical, and blepharospasm and the tears take care of further injury as a rule, long before the patient gets to us or any one else. As a rule mild alkalis, as sodium bicarbonate solution in weak strengths are recommended as irrigations in acid burns; and mild acid, as diluted vinegar, or diluted lemon juice are recommended for alkalis; but as before mentioned the strength of the injuring substance is usually diluted by the tears long before we see them. The cornea may be perfectly opaque when we first see it following a burn or chemical injury, and still regain its

normal transparency; again a greater or less nebula or macula will result, and in the latter case only days, weeks, or months will reveal the resulting permanent damage. The cornea may slough in a short time with prolapse of, or infection of, the entire contents of the bulb. In severe burns of ammonia the rate of diffusion is very fast, and the damage is liable to be deep and serious. The eye in these cases should be treated more for alleviation of pain and prevention of infection and symblepharon than anything else, and this is usually accomplished by, anaesthesia in the form of cocaine and adrenalin, holocaine, butyn, etc.; a heavy oil, as castor oil or pure mineral oil; mild antiseptic irrigations and eye dressing; the eye being frequently inspected for complications, such as superficial infection, deep inflammation and increase in tension.

In industrial eye surgery if one has much of it to do it is well to personally instruct the first aid personnel, and see that proper solutions, dressings, etc., are at hand and in proper condition, with the personnel familiar with their use. With regard to extent of loss of physical efficiency in industry due to industrial injury it is a matter of personal judgment depending upon the employment of the individual, extent of visual loss, etc., as it pertains to the individual's work; and there is no hard and fixed rule that can apply in my judgment, doing full justice to the injured party and the employer in all cases.

Discussion

Dr. Dell E. Graham, Ottumwa. Dr. Chase's most excellent paper on industrial corneal injuries quite meets with my approval. I am mighty glad he doesn't write about his last seventeen hundred corneal injuries without the loss of an eye or a resulting scar over the pupillary area, thus making the perfect batting average from a visual standpoint.

I do not believe he mentioned the injuries that occur in eyes of patients who are not in good physical condition and require more than the regular routine eye treatment to get fairly good results.

For several years I have been doing some eye work for two industrial concerns that make physical examinations of their employees. Occasionally I call for their record in cases that have severe injuries or slight ones that are not doing well. One which is quite fresh in my memory was a man past sixty. I removed a particle of rust from his eye and told him to be sure and return the next day. Instead of returning or reporting to the nurse at the plant he went on with his work as usual for two weeks. He then reported that a week before his wife had seen a yellow spot on his eye, but as it did not hurt him he had not paid any attention to it. He had a beautiful serpiginous ulcer covering all of the pupillary area and when placed in the hospital I

found he had four per cent sugar. I think his hospitalization period was very much shortened when he had insulin and a diet.

When a man's record shows or has shown a plus Wasserman I add plenty of iodide and mercury to the local treatment.

One of these plants has a number of silicate burns of the cornea. These injuries usually happen to employees pasting labels on boxes. The reaction is very rapid and painful, but if the silica is removed within an hour and sterile vaseline and cold compresses used the inflammation usually subsides within a day or two without damage to the cornea.

I presume some day some German chemist will find in a lump of coal the perfect antiseptic for eye injuries. Until he does we will have to do the best we can.

Personally I have never been a worshiper of the god Argyrol. I think the ten percent solutions are equally as effective as the forty percent ones. The stronger ones are so irritating to the cornea that they open up new channels for infection along the edges of the wounds. I prefer 1 to 3000 bichloride dressing after removal of foreign bodies unless pneumococcus is suspected; then I use optochin. But if the pneumococcus diagnosis is confirmed by the microscope and an ulcer appears, I use the cautery and continue the optochin.

I should like to hear an expression of opinion from some of the members on their results with protein therapy in the penetrating wounds of the eye.

Dr. H. B. Young, Burlington—I wonder if this section has read the Bureau of Chemistry and Pharmacy material. Four or five months ago it carried a discouraging report of argyrol. All of the corneal wounds, I think we are agreed, should be treated by the conjunctiva flap. I have a case on hands now, in which a man was struck in the eye two weeks ago by a steel chip 3 inches long and 3/16 inches wide; no mark of injury could be found. Vision was reduced to large objects. There was intense pain and tenderness in the eye ball. I used atropine and ordered him to bed. Complains of loss of vision and pain. These I cannot harmonize with the physical findings. Must take into consideration the possibility that some people are malingerers. This is quite a factor in industrial compensation.

Dr. Jas. A. Downing, Des Moines, Iowa—The first thing I want to recommend is that every case of eye injury have the vision of the eye recorded at the first examination, not the final examination, but the first; doing so will save you a lot of trouble. I can recall in the few years I have been playing around with eyes that in some of the minor injuries to the eyes from cinders, emory, etc., where the vision was taken and the eye found practically blind, a look in the eye will find some old pathology. It will stop any argument if you take the vision in the first examination. If you let it go for three weeks, then

you will have an argument to prove that the loss of vision is not secondary to the injury. The probability of compensation in relation to settlement after eye injury enters in, as it is taken for granted that every eye is normal, unless you have a previous record of disability. If you have proof that the eye was only up to a certain standard before, there will be no argument as to the amount of vision which the patient sustains following that injury. In the matter of chemical and electric burns, I have seen quite a number around industrial plants, and in my experience alkali burns produce very much worse resulting vision than acid burns. There seems to be a tissue devitalization which permits very dense round cell infiltration in the interstitial corneal tissue.

Dr. George C. Albright, Iowa City, Iowa—How many of you men are using mercurochrome in the eye? As you all know it is dibrom oxymercurifluorescein. In the two percent to five percent solution I have found it very efficacious, both in staining of the ulcer, for which we formerly used an alcoholic solution of fluorescein, which was very irritating, and also for the treatment of these simple ulcers, after removal of foreign bodies. A little over a year ago a young man who had worked with hot solder soldering electric wires, had some of the solder dropped in his eye searing the lower one half of the cornea milky white. Mercurochrome two percent stained this entire area bright red. It is evident that the superficial burn was sterile. I instilled some atrophine and some one percent mercurochrome ointment, bandaged the eye and had the patient return the next day. To my surprise the seared epithelium had completely desquamated and the cornea would not stain with mercurochrome. There was no intraocular damage, no ciliary injection. The vision soon returned to normal. I have found mercurochrome in from one to five percent solutions, very effective. It stands to reason one may well be careful in his technique, keeping solution where it belongs in the conjunctival sac, not on the face of the patient, nor on one's own fingers.

Dr. Albert J. Joynt, Waterloo, Iowa—I do not like to condemn a case as a malingerer if I can get out of it.

Dr. Young's case reminds me of one that I have very recently seen. This man worked in one of our factories, and had repeatedly gotten foreign bodies in his eyes. After having had one removed about eighteen (18) months ago, he noticed that his vision began to fail. He naturally attributed this loss to the foreign body. He knew that he had his vision taken on various occasions, and that it was normal for each eye.

I went over his eye very carefully, and found a normal refraction, and a small, central scotoma. On going over him more generally it was found that he had a loss of abdominal reflexes, and I have very

little doubt, but that this man will develop a typical multiple sclerosis.

Occasionally we find a marked loss of vision following the removal of a foreign body, when the injury or error of refraction, is not sufficient to account for the same. Many of these, I think, are congenital amblyopias, and were not aware of impaired vision. This is easily possible, as often one finds a man who has reached presbyopia, without knowing of congenital amblyopia, especially if it is in his left eye.

Dr. F. W. Dean, Council Bluffs, Iowa—Dr. Chase spoke of abrasions of the cornea and passed over the subject as if the treatment of these abrasions is a simple matter.

There are abrasions caused by injuries by weeds or other vegetable substances. The result is an agricultural keratitis, characterized by an abrasion over which epithelium forms rapidly and to all appearances the lesion is healed, but in a day or two the newly formed epithelium loosens from the site of the abrasion, forming a bleb. When the bleb ruptures, the condition of the cornea is as it was before the epithelization took place. In some cases this process is repeated many times.

I have found the following technic brings about a cure. The eye is cleansed, the entire surface of the ulcer is pasturized, (not cauterized) and the conjunctiva is freed from its attachment to the globe around the upper half of the cornea. This loosened flap of conjunctiva is brought down over the cornea and sutured to the conjunctiva below, covering the entire cornea. The sutures are removed in a week or ten days and the conjunctiva retracts into its former position.

I have used this treatment in eight cases and when the sutures were removed the ulcer in each case was healed and no more relapses occurred. I suppose the cause of healing was that the ulcer was perfectly protected and it may be that the raw under surface of the conjunctiva may have stimulated the healing process.

Dr. Elmer P. Weih, Clinton, Iowa—I have seen many of these cases. I find it is best not to use too bright a light, as too bright a light seems to hinder the patient's fixation. The patient must keep both eyes open and told to look at a fixed object with the uninjured eye.

An excellent aid in finding small foreign bodies stuck on the cornea is raising the lower lid with the index finger and looking through the upper edge of the tears as they come in contact with the cornea on the upper edge of the lower lid.

Dr. Thomas R. Gittins—I would like to urge in some of the severe corneal injuries more active use of foreign proteins. We have used milk in a number of cases, but during the past year have used typhoid vaccine almost exclusively and this by the intravenous method. One cannot expect much good

from the foreign proteins unless there is a very severe reaction, usually that means a high temperature with chills. Just recently we have had a very severe inflammation following a removal of a piece of steel from an eye which went from bad to worse until we felt sure that it would have to be enucleated. We used typhoid vaccine intravenously, obtained a severe general reaction with high temperature and chills. From a practically blind painful inflamed eye, we had a quiet painless eye with 20/20 vision within six or eight weeks.

I recently noted in the Journal of Ophthalmology a report of several eyes that had been lost after receiving burns from battery sulphuric acid, and it was mentioned that the cornea of the last two eyes had become entirely necrotic and both eyes had to be removed. I had not realized that we could expect such severe corneal injuries from this type of burn.

No matter how minor the injury to the cornea, the chronic tear sac infection certainly has a great element of danger. We have a man in the hospital at this time who had a corneal ulcer, and it has taken all the treatment at our command to save the eye. He has a bilateral chronic tear sac infection, and the injury was only a slight scratch from a piece of plaster.

Dr. Chase (Closing)—I think that the chairman has brought out the thing that he wished concerning the subject he assigned me and that is, a free and frank discussion. Regarding the use of argyrol, would say that while still an interne in the University hospital at Iowa City, it was found that argyrol had to be used in 40% strength in order to have any bactericidal action, and, that if it was freshly prepared, that it had the astringent action of the other silver salts and was not irritating. It is only when the solution has not been freshly prepared, or has oxidized, that it is irritating in this strength. I have used it for 10 years and have never had any occasion to change, when I want to use an agent with bactericidal, astringent, and non-irritating properties. Until I find some agent with these properties in a higher degree, I will continue to use it. Mercurochrome, because of its markedly staining propensities and general mussiness and because I believe it is more irritating than argyrol, I do not like.

I wish to thank Dr. Weih for his very practical suggestions, and the one in which he used the tears to magnify the foreign body is a new proposition to me and it would seem to be very worth while. I have had several cases in the last few months in which I used protein therapy, by means of typhoid vaccine, boiled milk, etc. and in not one did we get a worth while systematic reaction, nor could I see any marked improvement, following its use, in the eye. I have, however, seen cases of ophthalmia where we have used it and obtained a quick and marked improvement in the condition after we had obtained a severe general reaction.

I have never used protein therapy intravenously, but have used the subcutaneous or intramuscular method and I will try the intravenous method in the future with perhaps better results. With regard to malingering would say that this is a problem that every individual has to work out according to the case in hand and the final diagnosis rests on the surgeon's personal judgment.

College of Medicine

State University of Iowa

(From the Proceedings of the University Hospital Medical Society.)

YEAST VAGINITIS: ITS POSSIBLE ETIOLOGICAL RELATIONSHIP TO ORAL THRUSH IN THE NEW-BORN

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Yeast infection of the vagina has long been recognized under the name of "vaginal" or "cervical thrush" and "aphthous vaginitis," but only isolated reports have appeared in the literature, and it has been assumed that this infection is extremely rare. Our recent studies have shown that this assumption is unfounded and that *Monilia* can be demonstrated in forty per cent of patients complaining of vaginal and vulval itching and burning, whereas a much smaller percentage (ten per cent) of control patients gave positive cultures. Whether these fungi actually produce the symptoms can not be proved, but evidence of such a causal relationship is rapidly accumulating.

It seems that pregnancy is a predisposing factor since eleven of sixteen pregnant women complaining of vaginal irritation showed the organisms, whereas among the non-pregnant group there were only eight positive cultures in thirty-three cases. Presumably the increased acidity of the vaginal secretion during gestation favors the growth of the *Monilia*.

In certain instances, the *Monilia* were associated with *Trichomonas vaginalis*, which were present in forty per cent of our control group. Occasionally, eradication of the yeast relieved the symptoms without eliminating the trichomonas, an observation which makes us doubt the pathological significance of the latter.

Pruritis, burning, and irritation are the most

noticeable symptoms, with the character of the discharge variable. At times, there is a profuse, thick, leucorrhœal discharge, and again a relatively slight, thin secretion with suspended white flakes. The introitus and vaginal mucosa are diffusely reddened and may be granular, while occasionally white patches of exudate similar to those seen in oral thrush may be noted. The symptoms are sometimes so severe that opiates are necessary if rest is to be obtained. Apparently the disease, both in the pregnant and the non-pregnant, shows spontaneous relief so that there is no irritation

PATIENTS WITH VULVAL OR VAGINAL IRRITATION	
MONILIA OBTAINED IN SMEARS AND CULTURES	
PREGNANT -----	11
WITH TRICHOMONAS INFECTION-----	3
WITHOUT TRICHOMONAS INFECTION-----	6
NOT EXAMINED FOR TRICHOMONAS-----	2
WITH GONOCOCCUS INFECTION-----	2
NON-PREGNANT -----	8
WITH TRICHOMONAS INFECTION-----	3
WITHOUT TRICHOMONAS INFECTION-----	4
NOT EXAMINED FOR TRICHOMONAS-----	1
WITH GONOCOCCUS INFECTION-----	0
MONILIA NOT PRESENT IN SMEARS AND CULTURES	
PREGNANT -----	5
WITH TRICHOMONAS INFECTION-----	4
WITHOUT TRICHOMONAS INFECTION-----	1
NOT EXAMINED FOR TRICHOMONAS-----	0
WITH GONOCOCCUS INFECTION-----	0
NON-PREGNANT -----	25
WITH TRICHOMONAS INFECTION-----	6
WITHOUT TRICHOMONAS INFECTION-----	5
NOT EXAMINED FOR TRICHOMONAS-----	14*
WITH GONOCOCCUS INFECTION-----	14*
*THE SAME PATIENTS.	

Fig. I.

even though the organisms may be grown from the vaginal secretions. Possibly this represents an acquired immunity, although this has not been proved. Diagnosis is made by smears stained with the Gram method, and by the use of cultures on Sabouraud's media. In smears, the presence of branched, budding mycelial forms is pathognomonic whereas the bud forms (conidia) are differentiated only with difficulty from leucocytes. The growth of Sabouraud's media is profuse in twenty-four hours, the colonies being large, white or greyish, raised, and glistening. The acidity of the medium practically prevents the growth of other organisms, and pure cultures are easily obtained. As a rule, the bud forms alone are found in cultures, although old growths occasionally produce mycelia.

Of the seven pregnant women with definite



Fig. II. Monilia growth on Sabouraud's media in Petri dish.

yeast vaginitis, who have been delivered, three have had babies who developed oral thrush during the first few days of life. In two of these cases there was no apparent chance of an ordinary nursery infection, and the conclusion was forced upon us that the babies' mouths were infected from the vaginal secretions of the mother, who was known to be infected at the time of delivery. In each of the three cases, the culture from the child's mouth and that from the mother's vagina were culturally identical. The remaining four babies escaped the infection until the time for discharge from the hospital. The time of appearance of the thrush (seven to nine days after



Fig. III. A micro-photograph (oil immersion) showing mycelia and conidia.

birth) leads us to think that the infection was acquired during the nursing period rather than at the time of passage through the birth canal.

Although it seemed a logical deduction that the babies acquired the infection from the mother, it still remained to be demonstrated that the organisms obtained from the vaginal secretions could actually produce thrush in the mouths of normal, healthy new-born children. After the harmlessness of the test was explained to them, several mothers volunteered, and this aspect of the question was quickly settled. From the eight cultures thus used, it was evident that six could produce the usual clinical picture of oral thrush, while two others, with slightly different cultural reactions, were seemingly not pathogenic in the oral cavity. As soon as the clinical picture was definite and cultures had been made, the lesions were treated to complete disappearance of the fungi.

The organisms in the vagina respond to those measures which have been shown to be effective in oral thrush. One per cent aqueous gentian violet was used once daily or at longer intervals and alkaline douches were employed successfully. Recurrences have not been observed although in certain cases the yeast has remained in the vagina over a period of months without producing irritative symptoms.

We have called attention to the frequency of *Monilia* infection in patients with vulvo-vaginitis, especially during pregnancy, and believe that we have established a definite causal relationship between this infection and the occurrence of oral thrush in new-born infants.

A FEW REMARKS CONCERNING ACUTE SUB-GLUTEAL BURSITIS

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S. U. I.

It is usual to relegate diseases of bursae into the limbo of so-called minor surgery. Were it not for the frequency of Sub-deltoid Bursitis as little would be known of this syndrome as of the less common picture we are considering. In the latter instance the type of inflammation is commonly acutely suppurative with the staphylococcus aureus as the offending organism, or else chronic with the tubercle bacillus as the etiological agent. Although the syndrome was enunciated in 1853 by Chassaignac, yet in no modern system of surgery can even an approximately accurate description of the acute lesion be found.

Bursae are joints produced where soft parts pass over hard parts. These are histologically

identical with the essential parts of the common joints. Mesothelial cells line both. Each secretes synovial fluid. The bursa can be afflicted with all the pathology that the joint is heir to. Pyogenic inflammation, acute and chronic, traumatic synovitis, rheumatic changes, tuberculosis, syphilis, are all found.

It is not surprising, therefore, that a bursa constantly present and of considerable size should not infrequently be the site of inflammation. Because adjacent structures of great functional importance are in close relationship to it, it assumes particular interest.

The trochanteric or sub-gluteal bursa, as its name implies, is located beneath the gluteus maximus muscle and its enveloping fascia, lying upon the posterolateral portion of the greater trochanter. In the cadaver it appears on inflation, as an egg-shaped sac approximately $2\frac{1}{4}$ inches long and $1\frac{1}{2}$ inches wide. It is commonly unilocular. A prolongation, finger like, can occasionally be demonstrated, extending to the sciatic nerve. Sometimes the bursa communicates with those overlying the vastus lateralis muscle. It is found, however, to have no communication with the hip joint.

The affection of this bursa outlined in this brief note, is the acute suppurative process.

The acute syndrome simulates hip joint disease and for this reason, is of importance. The onset



Fig. 1. Bursal sac inflated with air. The cadaver lies prone. The gluteus maximus is divided at its sacral origin and reflected laterally. The sciatic nerve is seen medial to the bursa.



Fig. 2. Incised acute sub-gluteal bursitis. The tendinous insertion of the gluteus maximus is divided for free drainage.

may be very acute or only moderately so, with high fever, pain in the hip and prostration of varying degrees. The femur parallels in its position an intra-articular lesion. The hip is firmly held in flexion, abduction and external rotation. Pressure about the hip elicits exquisite pain, especially over the greater trochanter. The crest-fallen reports of cases in the German literature from 1853-1875 when clinicians were most aware of the lesion are strikingly uniform. The diagnosis of acute suppurative arthritis is regularly made in these patients. The joint is confidently opened for drainage of obvious pus. Nothing is found. The finger is pushed laterally behind the trochanter and from beneath the gluteus maximus gushes a pint of pus. The opened hip joint is now grossly contaminated and a septic arthritis or sepsis may ensue.

This resemblance to septic arthritis is the most striking feature. The differential diagnosis can, however, be made with considerable assurance, if the existence of the syndrome is considered in each case of apparent hip joint suppuration. The history and appearance of the patient grossly may be quite misleading. The temperature of 104 degrees, the leukocytosis of 20,000, the prostration, all point to rapid absorption of toxin. The swelling about the hip region, and the position and fixation of the hip, bespeak disease of the joint. However, the tenderness will be found maximal over the region of the bursa. While movement of the hip is resisted, yet a history of weight-bearing the first day or two of the attack may be obtained. Although pressure on the trochanter elicits exquisite pain yet pounding on the flexed knee is permitted. Notwithstanding the hip seems fixed by muscle spasm, yet, by obtaining the patient's confidence, some further external rotation and extension may be elicited (as these motions tend to further relax the muscle spanning the sac of pus). In short, when the diagnosis of acute sub-gluteal bursitis has been entertained as a possibility, there will have vanished half of the diffi-

culty in determining the presence or absence of an intra-articular lesion. For example, severe sciatic pain occasionally appearing in the syndrome is easily explained on the basis of involvement of the finger like projection of the bursa which reaches to the nerve trunk.

The local complications are those incident upon extension into the large potential space under the gluteus maximus muscle, or involvement of the fascial compartments of the thigh. These latter were first accurately described by H. J. Prentiss. A comprehension of the anatomy of the region is as necessary to an understanding of the paths of pus in the thigh as is the case in tendon sheath infections of the hand. In this summary paper no more can be done than merely call attention to the existence of this knowledge. Rupture of the bursa into these compartments of the thigh followed by septicemia and death has been reported.

The treatment consists of prompt incision into the bursa through the tendon of insertion of the gluteus maximus. To ensure efficient drainage, it is advisable to divide a good part of the tendon of insertion into the gluteal ridge of the femur. With efficient dependent drainage, the lesion seldom fails to heal rapidly. The chronic draining bursae are either the result of failure to divide the spanning insertion of the gluteus maximus, or are really secondarily infected tuberculous lesions. The latter occur with fair frequency.

Announcements

RECENT FACULTY APPOINTMENTS

The University of Iowa has recently announced several appointments to the Faculty of the College of Medicine.

Dr. Milford E. Barnes as Professor and Head of the Department of Hygiene and Preventive Medicine assumed his duties on February 1st. Dr. Barnes is a native of Columbus Junction, Iowa. He was graduated from Rush Medical College in 1914, entered public health work and later joined the field staff of the International Health Board of the Rockefeller Foundation. For a number of years he was stationed at Singapore and later worked in Siam. After his return from the Orient, Dr. Barnes received his doctorate in public health from Johns Hopkins University. He subsequently took charge of the training center of the county health unit in Darke county, Greenville, Ohio. During the past year he was in Lansing, Michigan, engaged in state public health work. Dr. Barnes is a member of the American Public Health Association and of the Royal Society of Tropical Medicine.

Dr. Harry P. Smith has been appointed Professor

and Head of the Department of Pathology and Bacteriology and will commence his duties in July of this year. Dr. Smith was born in West Branch, Iowa, was educated in California and was graduated in Medicine from the University of California in 1921. He joined the staff of the Hooper Institute where he was associated for some years with Dr. George H. Whipple. He was Instructor in Pathology at Johns Hopkins Medical School for a time and studied abroad during 1925. He has recently been Assistant Professor of Pathology at the University of Rochester. Dr. Smith is a member of the American Association of Anatomists and the American Society for Experimental Pathology.

Dr. W. H. Leonhard Koeppe has been associated with the Department of Ophthalmology since the beginning of this year as Research Professor of Ophthalmology. Dr. Koeppe comes from the University of Halle, Germany, where he occupied the chair of Theory of Microscopy and Physiologic Optics. He is an authority on microscopy of the living eye and on matters pertaining to physiologic and mathematic optics. He will devote his time principally to research work in optics. He will, however, from time to time, conduct short courses in slit-lamp microscopy for post-graduate students. Such instruction will be available for any practitioner. Arrangements for admission to these classes may be made by communicating with the Department of Ophthalmology.

GRADUATE COURSE IN OPHTHALMOLOGY

A short post-graduate course in Ophthalmology will be given at the University this spring. The course will be of two weeks duration, extending from April 28th to May 10th, inclusive.

The lectures and demonstrations will cover the different phases of Ophthalmology and will be entirely practical. Several well known ophthalmologists have accepted invitations to assist in the instruction. The class will be limited to ten students. The registration fee is one hundred dollars.

Further particulars of the course may be had by addressing the Department of Ophthalmology, University of Iowa.

ANNUAL CLINIC OF THE UNIVERSITY

The nineteenth annual clinic will be held in November, 1930, instead of at the usual time in April. The change in date is the result of suggestions from many of those who have been in the habit of attending these yearly exercises, pointing out the unfavorable conditions of roads in the early spring, and commenting upon other factors which make attendance upon an April meeting difficult or impossible. For these reasons the Council of the Medical Faculty has deemed it wise to make the postponement. No-

tices will be sent in due course to all physicians in Iowa, advising them of the dates set for the autumn meeting of the Clinic, and providing an outline of the program.

THE INTERNATIONAL SOCIETY FOR CRIPPLED CHILDREN TO MEET IN TORONTO

Vitally concerned with the welfare of all crippled children living on the North American Continent, social, political and civic leaders, medical and educational authorities will assemble at Toronto March 17 to participate in the three-day annual meeting of the International Society for Crippled Children. Convention headquarters have been established at the York Hotel.

Hon. G. Howard Ferguson, Premier of Canada and Hon. Franklin D. Roosevelt, Governor of New York, are included in a long list of distinguished speakers who have accepted program assignments. The meeting will be under the patronage of the Governor General of Canada and Viscountess Willingdon. The Ontario Society for Crippled Children, under the leadership of Robert L. Stratton, was instrumental in bringing the ninth annual convention to Canada.

Each session will be devoted to the discussion of specific phases of the problems encountered in restoring crippled children to health and happiness. Education, vocational rehabilitation, treatment and care, investigation into the causes of crippling, questions of financial and professional aid and management of this world-wide movement will be brought before the delegates.

The keynote address will be given by Dr. W. Edward Gallie of Toronto, chairman of the professional advisory committee. Dr. Gallie will also lead the discussion at the professional committee session. Dr. Charles M. Elliott, Ypsilanti, Michigan, will preside at the educational session and the executive meeting will be under the direction of Mr. J. N. Hamilton, Oklahoma City, Oklahoma.

Arrangements have been made for the delegates to visit public institutions, and hospitals during the period of the Toronto meeting. It is also planned to hold several luncheon meetings in conjunction with the Toronto Service Club.

DR. KEEN CELEBRATES NINETY-THIRD BIRTHDAY

On January 20, 1930, Dr. W. W. Keen of Philadelphia, veteran of three wars and internationally known and honored as an authority in surgery, celebrated his ninety-third birthday. Dr. Keen is perhaps best remembered as the author of "Keen's Surgery" a long recognized text book for medical students.

STATE HEALTH COMMISSIONER'S PAGE

 Henry Albert, M. D. 

PREVALENCE OF COMMUNICABLE DISEASES

The diseases most prevalent during the last month are measles, smallpox, scarlet fever, chickenpox, and mumps—in that order.

MEASLES

The prediction made in the Journal last month that the state would see a large increase in measles is now being fulfilled. The high rate (1179 cases) for the month of January, 1927, when an extensive epidemic prevailed, was very nearly equalled by the figure of last month, 1126 cases. A still further increase is expected during next month. Special effort should be made to prevent exposure to this disease, of children under three years of age. Under the heading, "Control of Measles" the last weekly Bulletin of the New York City Department of Health says, "At last, after years of study, we seem to have arrived at a point where measles, that most prevalent of children's diseases, may be to a considerable degree controlled It is clear that there are grave objections to any method which will entirely prevent measles, for this would lead to the gradual building up of a large population of non-immunes who would be decimated should the disease perchance be re-introduced. On the basis of the experiences of the past ten years, Park now advocates the use of whole adult blood in a city-wide campaign for the control of measles." For the method of using parent whole blood, see the article on this subject by Lanpher and Moore in last month's Journal.

SMALLPOX

During the month 551 cases of smallpox were reported from 49 counties. This is 192 cases more than were reported for the corresponding period during the last six years. Five deaths from smallpox occurred during 1929 and a death has been reported within a month. Community public health consciousness can often be measured by the amount of smallpox present. If every physician would advise the parents representing his clientele when their baby is a year old, that this is the time to have the child vaccinated, the sentiment

regarding vaccination would very rapidly change.

When smallpox makes its appearance in a community, and involves a family whose children attend school, the State Department of Health advises that the local Board of Health make a ruling prohibiting attendance at school of all children and teachers who have not been vaccinated successfully within seven years or who have not had smallpox,—that notice of such ruling be given to the local School Board with recommendation that it be enforced. The best way of accomplishing this result is to hold a joint meeting of the Board of Health and the School Board and to agree upon the procedure to be followed.

This method has been used in several communities with the result that the outbreak has been promptly stopped.

SCARLET FEVER

Last month scarlet fever reached the highest incidence for the same period during the last six years. Although the disease itself is mild in most cases, complications occur which leave lasting effect upon the patient. The use of scarlet fever toxin in five dose treatments after the manner of Dick, for producing immunity is recommended for those children not known to be contacts, when scarlet fever is prevalent. The use of scarlet fever antitoxin in prophylactic doses for contacts is not recommended. The immunity thus gained lasts only 10 days to 2 weeks, after which the child may again be subject to infection. Use of antitoxin in therapeutic doses is recommended in those cases in which it is feared the disease will be severe.

ONLY 34 DEATHS FROM DIPHTHERIA IN 1929

The reduction in the number of cases and deaths from diphtheria during the past few years is a remarkable demonstration of what can be accomplished in the prevention of disease.

Thirty-four deaths from diphtheria last year compared with 67 in 1928, 121 in 1927 and 247 the average of the five year period before the extensive use of toxin-antitoxin, means real progress.

The time for extensive campaigns should soon

be over. Physicians should see to it that a second campaign in a given community should not be necessary. It will not be, if every physician will keep a calendar memorandum to remind him when the children of his "families" become nine months old and tell the parents that this is the best and proper time to immunize against diphtheria with three doses of toxin-antitoxin or toxoid.

MENINGITIS ON INCREASE

True to its seasonal tendency, cerebrospinal meningitis is now showing a moderate increase. Eleven cases were reported last month. It is exceedingly important that every case of meningitis have a lumbar puncture made and the diagnosis of the type of meningitis confirmed by laboratory examination. Cases of meningitis caused by the Meningococcus are reportable and quarantinable. In every instance of meningococcic or cerebrospinal meningitis, a search for carriers among those who have been exposed should, if possible, be made. The laboratory procedure, however, is rather difficult and can be properly made only when the bacteriologist is on the ground while the clinician or health official makes the swabblings.

An example of proper procedure occurred a few weeks ago following the development of a case of meningitis in a state institution. The clinician, the Epidemiologist of this Department, and a bacteriologist from the State Hygienic Laboratory of the University made bacteriological, etc., examinations of more than 500 within two days of the occurrence of the case. No other cases developed.

COURT UPHOLDS PRECAUTIONS AGAINST SMALLPOX

Because of the presence in the families of certain children attending the consolidated school, the Board of Health and the School Committee of the town of Hedrick, acting together prohibited the attendance at school of children who had not been successfully vaccinated within the five years next preceding, or who had not had smallpox.

Exception was taken to this ruling by a citizen and a plea for a writ of mandamus was made to the district court. The hearing was held on Friday, February 14, 1930.

After hearing both sides the court declined to issue the writ of mandamus. Thus, again, in addition to many more instances, the efforts for protection of the public health by health authorities have been sustained. The decision of the court will give encouragement to other communities, which may be threatened with smallpox put into

operation the methods which experience and practice have demonstrated will protect against this disease.

FIFTH ANNUAL PUBLIC HEALTH CONFERENCE FOR HEALTH OFFICERS AND PUBLIC HEALTH NURSES

Announcement has been made that beginning on Thursday, April 3, Public Health Officers and Public Health Nurses of the state will convene in a Fifth Annual Conference. This Conference is held under the auspices of the Iowa Public Health Association and the State Department of Health. The meeting place will be the Fort Des Moines Hotel and the Iowa Methodist Hospital, Des Moines, Iowa.

During the first day—Thursday, April 3—the outstanding speakers will be Mr. A. W. Wieters, Chief Engineer of the State Department of Health, who will address the meeting on "Water Supplies of the State," and Mr. R. L. McLaren, Director Division of Vital Statistics, State Department of Health, whose subject will be "Iowa Mortality Statistics for 1929." At the afternoon session, Dr. P. W. Covington of the International Health Division, Rockefeller Foundation, will discuss "The Importance of Promoting Public Health Work in Rural Communities," while at an informal dinner Thursday evening, Dr. A. J. McLaughlin of the U. S. Public Health Service will deliver an address entitled "Public Health."

At the Friday session, among other noteworthy addresses will be that by Dr. William F. King, State Health Commissioner of Indiana and member of the White House Conference Planning Committee, who will speak in the morning on "President Hoover's White House Conference on Child Health," and in the afternoon on "The Reduction of Maternal and Infant Mortality."

This Conference will be open to all health officers throughout the state, and to any interested practicing physician.

JEFFERSON MEDICAL COLLEGE

Announcement has just been received that the new college building of the Jefferson Medical College, located at Tenth and Walnut Streets, Philadelphia, was dedicated with special ceremony on Saturday, February 22, 1930. At the dedicatory services, the faculty and students of Jefferson Medical College, together with distinguished graduates and practitioners from many points in the East, were in attendance. The dedicatory address was delivered by Dr. George B. McClellan, Professor of Economics History in Princeton University. Following the dedicatory ceremonies, a series of Alumni Clinics were held in the Samuel Gustine Thompson Annex of the Jefferson Hospital.

The JOURNAL of the Iowa State Medical Society

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NEW SECTION FROM THE FACULTY OF THE STATE COLLEGE OF MEDICINE

Elsewhere in this issue will be found a section written and sponsored by representatives of the faculty of the School of Medicine of Iowa State University. In introducing this section, we do so with a feeling of pride and pleasure, since, by its presentation, we fill a long felt need to complete a service to our readers.

It is proposed that in this section will appear each month epitomized reports of papers relating to clinical research problems or clinic studies and clinical case reports. This material will be selected from the programs of the University Hospital Medical Society, an organization embracing all the professional members of the State Medical School. It is hoped that this section will familiarize the profession of the state with the work which is being accomplished in the medical school, and in the review of clinical problems as encountered in the University Hospital, will enrich the practitioner's experience in this significant group of cases. When case reports are presented, summarized clinical data will be furnished, including such laboratory tests as were felt necessary to establish a diagnosis. Through the discussion of clinical research problems, the reader will be kept in touch with the research work which is being undertaken in the various departments of the medical school, and the investigation of clinical cases in progress in the University Hospital.

The editors of this section will welcome any

suggestions, discussions, or constructive criticism which our readers may care to advance. All inquiries or correspondence relative to this section should be addressed to the editor of the Journal, who will, in turn, see that this correspondence reaches the proper hands.

IS CHIROPRACTIC MORIBUND?

Since the beginning of medical history, there have been scores of cults, all purporting to relieve physical ills. The number and variety of these cults have been limited only by man's imagination. Without exception they have quickly reached the zenith of their popularity and almost as promptly met a well-deserved annihilation. From information emanating from Chiropractic Headquarters, we are led to believe that another cult of recent birth is tottering and its fall imminent.

About 1895 the late Daniel David Palmer "discovered chiropractic," a form of manual adjustment of the spinal column. It is interesting to recall that the elder Palmer was a "magnetic healer," who performed "cures" by the transmission of alleged magnetic impulses. In a course of a treatment of a deaf negro, by this system, "Healer Palmer" discovered an unusual protuberance on some part of the negro's spinal column. By placing the negro on the floor and exerting sudden severe pressure on the protuberance, he effected an "adjustment." This procedure, according to the story, restored the patient's hearing and served as a basis for the "discovery" of the new art. This story bears great resemblance to that offered by Andrew T. Still in explaining the "discovery" of Osteopathy some years before. The Father of Osteopathy, it will be remembered, suffered from a severe headache while plowing in the field and, while his team rested, placed his head in a loop of the reins and fell asleep (according to the story, the team remained hitched to the plow during this siesta). On awaking from his nap, Founder Still, was relieved of his headache and promptly announced to the world a new cult. The similarity of the stories relating to the discovery of these cults, together with a similarity (in a general way) in practice, then, would make it appear that the chiropractic cult has borrowed from osteopathy rather than from medicine, although, more recently, it has taken on some of the aspects of that newer and unusually short-lived cult, Abramism. Illustrative of this latter statement, at a recent annual meeting of the National Chiropractic Association, the present master mind of Chiropractic, B. J. Palmer of Davenport, intro-

PRESIDENT'S MESSAGE



A striking illustration of the effectiveness of the modern warfare against disease is the continued decline in the death rate from tuberculosis. The preliminary figures for 1929 indicate that the mortality has now been reduced in Iowa to 33 per 100,000, whereas the rate for the country at large is above 80. No doubt considerable credit for this splendid showing must go to the organized forces against tuberculosis as represented in this state by the Iowa Tuberculosis Association.

Lest we become too complacent in our attitude toward the ancient enemy, a glance at the figures showing the deaths according to age groups will make us sufficiently humble again. We note that tuberculosis is still the greatest cause of death in the ages from 15 to 40, the most productive period of life. It causes 24% of all deaths in females between 20 and 30 years of age. It strikes when the maximum investment has been made and the individual is just ready to begin life's work.

The Early Diagnosis Campaign is an organized effort to attack this alarming condition. This year under the slogan, "Early Discovery — Early Recovery," especial attention is directed to the recognition of childhood tuberculosis and the institution of proper prophylactic and curative therapy. We have spent in the past most of our time, effort and funds in attempting to salvage the wrecks produced by the tubercle bacillus. Now we feel that with more exact knowledge of the pathology and clinical course of tuberculosis we must attack the disease in its beginnings. The family physician is the most important unit in this great undertaking. He must be prepared to recognize the early manifestations of tuberculosis and place the patient under approved treatment so that the gross lesions do not develop. No greater opportunity in preventive medicine has ever been offered the medical profession. Let us prepare ourselves to be of the greatest service to humanity.

duced to the attending chiropractors a "neurocalometer" by which the chiropractor is said to measure nerve impulses flowing from the patient's spinal column and by certain machinery sealed in the box render not only the diagnosis evident but also to indicate the necessary point for the chiropractic adjustment. The benevolent B. J. Palmer is distributing these neurocalometers among his followers at only \$150.00 each.

The President of the American Bureau of Chiropractic, Dr. William H. Werner of New York City, found it necessary, during the course of this recent Convention to defend the "Fountain head" B. J. Palmer, and is quoted by "Time"—the Weekly News Magazine—as follows: "It's all wrong for you to go on cursing and damning and abusing B. J. It is not right folks. He is human. He has his little weaknesses, as who among us has not? He has his faults. But let us not go on cursing, abusing, and damning him. . . . I tell you, friends, it gave me a heartache to see those great (school) buildings (at Davenport) nearly empty and that great school (of chiropractic) almost without pupils. It wrung my heart to the uttermost."

Are we going too far afield to assume that such incidences as those just quoted are significant and indicate the trend of the times? Can the "blessings of chiropractic" be "riding on high tide" when the master mind in offering his new "contraption" for diagnosis states "Now I have 50 neurocalometers up in my room, and Mabel (his wife) is up there and is perfectly willing to take away from you—so long as those neurocalometers last—150 simoleons (dollars) each, so that you can take those neurocalometers home and *begin to build up your business.*" Again, are we not justified in assuming that there is a "premonitory rumbling" in the fraternal ranks of chiropractors since the actions of their "chief" require open defense? Are we not correct in assuming that the public demand for the "blessings of chiropractic" is waning since we find President Werner deploring the depleted condition of the "parent school"?

Again at this Convention "To keep his profession from extinction, and to get his fellow practitioners out of jail, President Werner exhorted his colleagues to give their Bureau \$25 each a week for an indefinite period: 'Are we so yellow that we are going to let ourselves quietly die off while the medical profession mangles millions of our fellow beings?' For such defense the chiropractors last week contributed exactly nothing."

To "the man on the fence," it would appear that the statements just quoted are the shadows

cast by impending doom and that it will be only a few short years until this cult will be recognized only as a historical curiosity. In the meantime, however, we find that some thirty-six states and the District of Columbia have legalized the practice of chiropractic, illustrative of what may be accomplished by concerted financial support in "lobbying."

BASIC SCIENCE AND THE CHIROPRACTORS

Since the basic science law went into effect in Nebraska, in 1927, no chiropractors have been licensed in that state. Four who took the examination failed to pass.—*Bul. Chi. M. S.*

QUACKERY IN RADIO MEDICINE

It is interesting to note that public opinion has been sufficiently aroused in the dissemination of medical information that the Health Commissioner of the City of New York proposes to request the Federal Radio Commission, the Federal Trade Commission, and the United States Health Service to promote a nation-wide survey of "radio medical quacks." This announcement, made in *Health News* published weekly by the New York State Department of Health, is certainly a step in the right direction. The radio, reaching as it does an audience numbered in the millions, can exert a very favorable influence upon public health, if the material broadcasted is properly sponsored and authentic in character, or on the other hand, may become a serious menace if improperly used. At the present time, each station is permitted to exercise its own censorship, which means that any station may, if they desire, sell advertising or health propaganda to any organization who can pay the price. It is of interest to note, however, that certain broadcasting stations—notably the General Electric radio station at Schenectady, WGY—have established a rigid censorship, and have attempted to eliminate from their programs anything of a non-ethical or questionable nature.

On January 3, a conference of broadcasters, medical authorities, and business men, was held. It was the consensus of opinion that the most effective approach towards eliminating undesirable programs would be to institute a nation-wide appeal to radio stations to establish a strict censorship rather than to attempt to secure legislation compelling such censorship. It would seem that the program could be furthered by a very active interest by the medical profession through their official organizations in securing for radio stations

such health programs as might be desired; to be presented by, or at least sponsored by, members of the medical profession.

We believe that effective pressure could be exerted upon a broadcasting station by the local profession, if the activity was endorsed and sponsored by the local medical society. The problem is not at all unlike that encountered a few years ago in newspaper advertisement. Newspapers were reluctant to forego the revenue accrued from patent medicine or "quack" advertising but by united effort on the part of organized medicine such advertisement is today barred from all newspapers of any standing.

One broadcasting station, of which we have knowledge (WHO—Des Moines) some time ago invited ten members of the local medical profession to participate in a series of medical talks from their station. The County Society, glad to co-operate, sponsored the programs and this feature was considered as highly successful. Another station, also in Iowa, has recently given a series of alleged health talks from their station which to many well informed listeners were far from scientifically correct and in every sense savored of blatant quackery. Our impression is that the County Medical Society, in this instance, should feel obligated to attempt to stop this abuse of the air.

This problem is a live one and one which should command the early thought of medical men. Certainly the New York Commissioner of Health is to be commended for his efforts at solving this vexing problem.

THE PEHAM KLINIK

NICHOLAS SCHILLING, M.D., New Hampton

A favorite meeting place of American doctors in Vienna is the famous old Schauta Frauen Klinik now under the masterful direction of Hof-rath Heinrich Peham. There is an atmosphere of ethical dignity, of industrious well-directed scientific inquiry and scholarly attainment about this classical edifice that is singularly stimulating to the earnest student of obstetrics and gynecology. It is noteworthy that in this part of the world these specialties are rigidly differentiated from general abdominal surgery. There is much to be said in favor of this arrangement. It might help to improve our statistics if we were frank enough to acknowledge the obvious fact that the art of obstetrics including gynecology is an interesting, comprehensive and exacting specialty worthy of any man's entire time, talent and skill.

It is an old tradition, verified by abundant experience, that vaginal operations are borne comparatively well. A vaginal hysterectomy will be associated with less shock, fewer complications and give a better prognosis than the same operation performed by the abdominal route. While this observation applies with particular force to the short, obese cardio-hepatic case it is not without significance in every type of patient. These considerations are especially emphasized at the Peham Klinik. It is here that the enlarged radical vaginal hysterectomy was worked out and where it is now the procedure of choice in all operable cases of cancer of the cervix. Radiation is reserved for aftertreatment and for the amelioration of inoperable conditions. The salient features of the Schauta operation consist not only in exposure of the ureters and the wide excision of the parametria but the upper third or even more of the vagina with varying amounts of paro-vaginal cellular connective tissue is also removed. While such methodical and extensive dissection tends to increase the incidence of operability and insures a greater percentage of permanent cures it makes extraordinary demands on the capacity of the operator. The novice is apt to become discouraged in the course of this intervention. It is one operation where the more occult refinements of the surgical art need to be superseded largely by real knowledge, skill and experience.

It is pertinent to inquire whether the bold attack on the cancerous cervix here outlined is justified by the results obtained. Statistics compiled with more than ordinary care will answer this question. In 248 cases the primary operative mortality was 3.65%. Of a hundred women with cancer of the cervix who come to the Peham Klinik for examination and treatment there are alive and well at the end of five years 31.13%. Bearing in mind the radical type of operation as now regularly performed in the Peham Klinik for the cure of cervical cancer it is disappointing to report that the percentage of operability is only 56%. It would seem that in Eastern Europe as elsewhere the task of educating the public on the cancer question has not kept pace with the advancement in surgical technique. While the enlarged vaginal operation is the accepted treatment for cancer of the cervix it would be a mistake to conclude that radiation therapy is neglected in the Peham Klinik. On the contrary, the Roentgenological Department is a very busy place. It is in charge of the able and gracious Dr. Stefan Simon. He speaks English fluently and he is especially kind and helpful to American Doctors. We have here an exceptional oppor-

tunity to study the effects of heat, light, diathermy and the x-ray as it is applied today in obstetrics and gynecology.

One of the most popular teachers in the Peham Klinik is Professor Oskar Frankl renowned for his pioneer work in endocrinology, embryology and pathological anatomy of the female generative organs. It is a great privilege to attend the special courses on obstetrical and gynecological diagnoses given by Privat Dozent Dr. Kraul and Privat Dozent Dr. Katz. Their demonstrations of the technique of vaginal operations at the operating table and on the cadaver are classical affairs. Assistant Dr. Kanniker gives a fine course in urology. "Your humble servant" is also greatly indebted to Professor Heinrich Keitler, chief of the Gynecological Department at the Jubiläums Spital in Lainz. This brilliant and delightful man contributed much to make our present journey an enjoyable and a profitable one. Professor Keitler is an outstanding representative of the Vienna Gynecological School. And, this is no empty compliment. No where else have we seen gynecological surgery performed with quite the skillful touch that prevails in the clinics of Halban, Weibel, Wagner, Werner and Latzko.

It is interesting and instructive to observe the classification of work in the out-patient department of the Peham Klinik. It includes, of course, every phase of antenatal care. In addition to the cancer group four other divisions are maintained. The large ambulatorium constitutes a kind of clearing house for sick women. Here 6627 gynecological patients were received last year. In a special dispensary for the study and cure of syphilis not only the woman but the husband and the children are examined and treated. Another model subdivision is reserved for the diagnosis and management of pregnancy and its complications. In this place the laboratory is an important institution. Vaginal secretions are examined for gonococci and streptococci. Facilities are at hand for making the Wasserman and the Meinicke tests. Even the Zondek-Aschheim biological reaction is recognized as a valuable diagnostic resource in complicated cases.¹ All women complaining of bladder irritation are referred to an efficient urological service. It is surprising how often pyelitis, tuberculosis of the kidneys or nephrolithiasis are discovered.

In the practice of obstetrics the Peham Klinik is eminently conservative. In 1928 only nine Caesarean Sections were performed among 2252 deliveries. In this series forceps were applied 54 times and in twenty-nine instances version was done. Decapitation was resorted to in six and craniotomy in twelve cases. In addition to the

2252 deliveries at term 147 premature labors and 475 abortions were attended in the Klinik last year. There were also treated a number of women exhibiting symptoms of threatened abortion or other complications of pregnancy who were cured and left the hospital before delivery. So that a total of 3064 obstetric cases were admitted to the Peham Klinik in the year 1928.

Among the deliveries at term there were fifty-one dead children. Twenty-three mothers were lost. Three deaths resulted from post partum sepsis. Two of these with unmistakable signs of infection were brought in from the outside. The other fatal case of infection cannot be ascribed to "meddlesome midwifery." No instrumentation or other operation had been done. After a single vaginal examination the woman died of fulminant sepsis. Streptococci were demonstrated in the vaginal secretions. It is a wholesome exercise to speculate on the source of contamination. After reviewing the list of possibilities from defective plumbing to septic sore throat we are bound to reflect whether the result would have been different if the one vaginal examination had been omitted. It is conceivable that bacteria innocuous in the lower part of the birth canal, become highly virulent when conveyed to the uterine cavity.

Eight women died from sepsis complicating abortion. They were all brought in from the outside after infection had happened.

Three deaths resulted from rupture of the uterus. In one the accident had occurred before admission to the hospital. In the second case the uterus ruptured simply because a transverse presentation was neglected. The third history is particularly significant. At the site of an injury from a curettage the uterine wall gave way during a normal delivery. Two deaths resulted from heart disease. Tuberculosis of the lungs, tuberculosis of the larynx, influenza, ether narcosis, hyperemesis, carcinoma of the ovaries and carcinoma of the rectum were each the cause of a fatal issue.

In analysing these figures it is only fair to remember that the Klinik is naturally a "dumping ground" for all kinds of neglected and complicated obstetric cases. The comparatively large number of decapitations and craniotomies were not a matter of choice. It may be taken for granted that a dead or dying fetus resulting from a mismanaged or neglected first stage was the indication in most instances. At any rate, these anomalous procedures are not undertaken on a living child for economic or social reasons. And, it is difficult to have any patience with the contention that the opinion of a clinical court should

be influenced by the fact that the child in question is not wanted or appears to be more or less superfluous. No matter what the material circumstances of the family may be, no matter how many predecessors the newcomer may have, whether his advent is the epitome of despair or the fulfilment of a long cherished hope, his right to life and protection is an absolute and a sacred heritage. The proposal to dispute this right on any pretext whatsoever is unfair, cowardly and abhorrent. That it should be entertained at all in this age of technical obstetric accomplishment by the very profession instituted to save life amounts to a mockery of our pretensions. What would be the status of a criminal court who would decide to have a defendant executed on the ground that he was destitute, helpless, unpromising or unnecessary.

The Peham Klinik is a government institution established and maintained primarily for the purpose of teaching obstetrics and gynecology. Its mission has been nobly fulfilled. This statement will be gratefully approved by students from every corner of the earth. And, it is a joy to report that real teachers are still at work here. In spite of war, revolution and dismemberment in the program of the present regime there is not a decadent note. On the contrary, the Peham Klinik is one place in Europe where everyone seems to appreciate the value of time. Operations begin at seven-thirty in the morning. From chief to humblest instructor every member of the teaching staff speaks English. Their numerous and exhaustive contributions to current medical literature bear the stamp of patient research, accurate observation and sound conclusions. It is significant that they have not accepted the tenets of the so-called "new surgical era" in obstetrics. They have not been carried away by the notion that every pathological labor needs to be terminated by some operative stunt. Without imitating unreservedly their ultra-conservative standpoint we can learn much from a review of their methods. The "pass word" to practical skill in obstetrics is study and an opportunity to manage many normal and complicated labors under the direction of a chief who pretends to enjoy teaching, a teacher who radiates inspiration and confidence through speech and example. Unfortunately, all men do not possess and cultivate the wonderful talent to learn from experience. In fact, an opposite tendency is not an unusual phenomenon. So-called obstetrical intuition is not a gratuitous hereditary gift. It comes only to the obstetrician who knows how to utilize the minutes in the pursuit of that elusive thing called knowledge. So that the apparently occult, eso-

teric wisdom of the master is merely the direct outcome of an extravagant capacity for intensive, well directed clinical and scientific work. We suspect that the failure to discover the signs of contracted pelvis, at once, depends not so much on a want of skill as it does on a lack of interest and alert attention. It is clear too that the mere recognition of a cephalo-pelvic disproportion does not constitute an indication for caesarean section. It should tend, however, to eliminate the fatal elements of delay, surprise and "unpreparedness." It affords time for careful study and deliberate consultation. The trial labor so often a necessary evil in the management of dystocia can be confined to safe and reasonable limits and the section need not be undertaken in a place where competent assistance is not immediately available. It has long been fashionable to scold about unnecessary caesarean sections. To "view with alarm" is the attitude of many and voluminous writers on this topic. With tiresome regularity every contribution is prefaced by the stricture that, except in the authors own clinic, caesarean section is done too often. It would seem that in this instance the ordinary rules of scientific inquiry do not apply. All the data required to pass adverse judgment on the management of a specific obstetric condition is to know that the patient died after an abdominal delivery. The vital fact that there was a time when the operation would have prevented a fatal result is not mentioned. It is reasonable to conclude that a few prominent specialists do caesarean section too often and that the average practicing physician does not recognize the indications for abdominal delivery often enough. So called "masterly inactivity" can be overdone. Obviously, in deciding on the indications for suprapubic delivery, in a given instance, it is not a question whether the operation involves some risk but whether delay in the surgical treatment of the condition from the effects of which the patient is suffering does not involve more risk. The histories of fatal cases of caesarean section reported in current literature are monotonously typical. Almost without exception they are a record of delay, early rupture of the membranes and unsuccessful attempts at vaginal delivery. Every surgical operation includes prophylactic considerations. Consequently, there may always arise the suspicion and there may exist the possibility that a specific surgical measure may have been unnecessary. We cannot prove that, in a given instance, appendectomy performed during the interval has prevented a fatal peritonitis any more than we can demonstrate that the life of an individual soldier was saved by vaccination against typhoid.

In theory it is, of course, a simple matter to solve obstetrical problems. It is clear that to do the operation before anemia, shock, acidosis and infection have happened is also the best way to treat the handicapped obstetrical patient. It is in the practical application of this rule that the limitations of human judgment become apparent. In antenatal neglect and mismanagement of the first stage is this deficiency most often exhibited. The Vienna school is emphatic on this point. On every occasion the axiom is repeated that the clinical fate of obstetric patients depends not so much on the learned consultant who may be called in late to view the tragedy as it does on the professional stature of the doctor who presumes to direct the initial stage of labor. The clear cut rule prevails that each case must be judged strictly on its merits, that either the attendant understands the situation and is able to anticipate disaster by the timely recognition and treatment of complications or that he doesn't have the remotest idea of what it is all about. Guess work is not encouraged. And, no one has ever learned much about medical salesmanship in Vienna. It is cheerfully admitted that incantation and an unctious sympathetic bedside manner are valuable therapeutic agents. But they cannot enlarge a pelvis or reduce the size of a child's head in dystocia.

As a rule, childbirth is a "rather simple biological event." In fact, so regular is this physiological behavior of pregnant and puerperal women that the very suggestion of the possibility of embarrassment is ignored or even resented. Here is the real source of morbidity and mortality in childbirth. With the casual and reckless nonchalance of gamblers the patient and her advisors take a chance on the Powers of Nature. It is true that the odds are attractive. One is almost tempted to deplore the fact that nineteen out of every twenty women would deliver themselves without or in spite of any artificial aid. In that it gives a sense of "false security" this very circumstance tends to encourage and to justify improvident carelessness on the part of the patient and leads to perfunctory methods of practice on the part of the physician. The very source of disability and death in childbirth is this tendency to gamble on the chances of spontaneous delivery. The most placid puerperal situation may change in a moment to one of imminent danger to mother and child. So that in the practice of obstetrics it does not pay to take too much for granted.

The "high childbirth mortality" prevalent in the United States is a favorite theme with professional "Do Gooders." Statistics are perennially submitted showing that, in this respect, Uncle

Sam stands out prominent as a "horrible example." As if to add insult to injury it is forever pointed out that "in those countries where a proportionately greater number of deliveries are in the hands of midwives such as in Italy and Holland the mortality rate is almost the lowest on record." As a matter of routine the general practitioner is blamed for our bad results. "The existing high maternal death rate is without doubt related to his errors" is a proclamation that has become "standardized." This chronic lamentation is followed up generally by the legend that this sad state of affairs is due to the fact that in his obstetric practice the general practitioner presumes to imitate the "leaders in medical centers." Where else he is to look for inspiration and guidance is not disclosed. It is an interesting circumstance that critical obstetrical situations are not confined to "medical centers." And, there is no basis for the ridiculous insinuation that everything was just lovely in the good old days when dystocia resulting from contracted pelvis was treated exclusively by conservative methods. Exactly the contrary was the case. "Among the pictures that hang on memory's wall" there is none more vivid and none more heartrending than the recollection of three primipera who died undelivered at childbirth within a comparatively short time in a small frontier settlement. But to extenuate our shortcomings is not the purpose of our visit to the Peham Klinik. The very fact that there are so many American doctors here goes to show that they are thoroughly in earnest about their work.

That vaginal examination is not the only diagnostic resource is the one obvious lesson for us to relearn. It is possible to recognize pathological types of labor pains without a resort to the death dealing vaginal examination and internal pelvimetry. A history of rickets, difficult labors and dead babies should certainly put us on our guard. And, not to be taken by surprise is the one great desideratum in obstetric practice. In one instance of contracted pelvis the woman's mother and two maternal aunts had all experienced major degrees of dystocia. Another mature primipera volunteered the information that her abdomen was much more prominent than was the case with other women in their first pregnancy. This important clinical finding was confirmed on inspection and external examination. She exhibited a typical "Spitzbauch." The head could be palpated protruding prominently above the pubes. The distance between the anterior superior spines was twenty-five centimeters. It was twenty-seven centimeters between the iliac crests. The external conjugate diameter was seventeen centimeters. The rhomboid of Michaelis was anything but classical in its outlines. In such a case

it doesn't require an internal examination in order to determine that something is wrong. The "Spitzbauch" of the primipera, the pendulous inert abdomen of the multipera, the globular prominence immediately above the pubes, any deviation from the normal outlines of the rhomboid of Michaelis and the diminished distance between the trochanters are all evident at a glance and they are practically pathognomonic of pelvic contraction and deformity. In this connection it is a wholesome exercise to practice the suggestion of Edward Martin to the effect that "Ein Geburtshelfer sollte so geschult sein, dass ihm die geringsten Fehlformen mit falschen unschönen Linien auffallen und entsprechende Warnungssignale geben." (An obstetrician should be so trained that he notes at once the slightest deviation from the normal and beautiful in contour and dimension so that he may evaluate them as corresponding danger signals.) It is surprising what significant ear marks of contracted pelvis are perfectly apparent on simple discriminating inspection.

Another lesson that the Vienna school habitually endeavors to impart is the old observation that labor is not entirely a matter of mechanics but that individual psychic and physical texture are factors that need to be taken into consideration because they are bound to influence the course of clinical events in every labor case. Whatever may be the advantage of recognizing promptly the exact type of pelvis complicating labor it is equally important to know the type of patient we have to treat. In other words, not only the pelvis but the individual woman needs to be studied intensively. It has happened that the diagnosis of so prosaic and common a disease as acute appendicitis has not been made at an opportune moment apparently because it supervened during the latter weeks of gestation. The "dystrophia dystocia syndrome" or the "physiologically incompetent" vagotonic enteroptotic, overeducated sensitive creature is apt to require a different obstetric management than the robust courageous stoic heroine.

Outside of metaphysics there is probably no field of human endeavor in which it takes so long for a new idea to gain a foothold as it does in obstetrics. That it has always been a discouraging enterprise the biographies of Oliver Wendell Holmes and Ignaz Semmelweiss illustrate emphatically. Even now there is no appreciation of the practical circumstance that about a third of the medical work to be done in the world may be classified under the head of obstetrics. In the vain delusion that one individual can master the whole range of human knowledge the prospective obstetrician is systematically taught to memorize

—and to forget — an impossible conglomerate mass of non-essential, so-called correlated elementary facts. Much time and energy is dissipated in an impetuous attempt to acquire a knowledge of all the natural sciences, higher mathematics, physics and chemistry. Much like the tourist who "does" Europe in three weeks his furious pace is continued with intensive courses in all the various branches of medicine until he is "finished." Finished so that he will never want to think or study again! In the general eagerness to broaden and to round out his education, to prepare him for every possible social and clinical contingency he is fortunate indeed if practical training in midwifery has not been largely overlooked.

Another source of morbidity and mortality in obstetrics is the age old obsession that necessarily, several standards of practice must prevail. Midwife, general practitioner and specialist are each supposed to function in his respective sphere. This absurd notion is demoralizing to the profession, misleading and pernicious in its influence on the public. One would suppose that if it is our aim to improve statistics by more efficient practice the primary lesson to be brought home to an expectant mother would be the timely realization of the vital fact that there is no uniformity, no certainty, no security in the clinical behavior of obstetrical patients. It should be thoroughly understood by all concerned that the prospective mother who fails to take advantage of the comfort and security afforded by modern obstetrics does so at her own peril. Other things being equal the more remote and isolated her domicile the greater the risk. At that, the hazard is probably not greater than she would assume in failing to take out fire insurance on her home. In each instance she surely has abundant time to file her application. But let it be universally understood that when she does apply to the medical profession for protection she will receive, not the perfunctory "puttering" of a midwife, but the devoted service of an accomplished obstetrician. Either the attendant knows his "stuff" or he doesn't have the remotest notion of what it is all about. No matter what the environment may be it is the "man behind the gun" who determines the clinical fate and the statistics of obstetric patients. Consequently there is no occasion and no justification for two standards of practice. To receive every aid that modern medicine affords is the "divine right" of the "woman with the badge of maternity upon her." It is evident that in our wanderings along the corridors of the Peham Klinik we have become lost in a labyrinth of reflections.

Washington County Adopts County Health Unit

C. A. BOICE, M.D., Washington

[EDITOR'S NOTE: *To Washington County goes the distinction of organizing the first County Health Unit under Iowa's new and progressive law. This same county was the first to have a county hospital. This success is largely due to a united and constructive County Medical Society.*]

The meeting of the Washington County Medical Society for November 5, 1929, was set aside for the consideration of the County Health Unit. Dr. D. C. Steelsmith was present to explain the law. There were present at this meeting, besides the membership of the county society, the Board of Supervisors, Hospital Trustees, representatives of the Fortnightly Club, Red Cross, Ministerial Union, Farm Bureau, Parent Teachers Association, etc.

After a full discussion, the president of the county society, Dr. John L. Fry, was authorized to appoint a representative committee from over the county to present the matter to the county board of supervisors. This was so well done that at the meeting of the board on December 21, 1929, a County Health Board was named. This Board is made up of three physicians, Drs. E. E. Stutsman, John L. Fry and N. J. Lease, and William Griffin, chairman of the Hospital Board of Trustees, Burrell Foster, master farmer, A. J. Johnson, mayor of Brighton, Charley Harley, president West Chester Consolidated School, Mrs. J. A. Swartzendruber, county secretary of the Parent Teachers Association, Mrs. Leonard Bailey, Catholic Parent Teachers Association, Ed. Hammer, manufacturer, and A. E. Sands, banker.

This Board soon met and organized and after thorough consideration, recommended that the County Unit Plan be adopted, and as soon as this should be done that Dr. C. W. Stewart of Washington be selected as County Health Physician. The County Board of Supervisors in regular meeting February 26, 1930, accepted the plan as recommended and made the necessary appropriation.

To show exactly how this unit is to be financed and operated, the resolution passed by the county board of supervisors is given in full:

"WHEREAS, smallpox and other communicable diseases have been quite prevalent in this county in recent months, causing considerable expense to the county as well as to private citizens, also causing much loss in time, schooling and interference with trade. And,

"WHEREAS, a unified health service promises increased efficiency in health protection and dis-

ease prevention at a minimum financial outlay. And,

"WHEREAS, the Board of Supervisors of Washington County, Iowa, acting under the provision of Chapter 65, laws of the 43rd General Assembly, did on the 21st day of December, 1929, adopt the County Health Unit Plan and appoint a County Board of Health, which Board of Health has now proposed a Health Program for Washington County, Iowa. Now,

"THEREFORE, Washington County, Iowa, acting by and through its Board of Supervisors accepts the Health Unit program proposed by the County Board of Health and the same is hereby adopted for the term of one year beginning April 1st, 1930.

"The budget proposed by said Health Unit and the proposed income to carry out the provisions of said budget are as follows:

PROPOSED BUDGET

Health Officer.....	\$2,400.00
County Nurse	1,500.00
City Nurse	1,500.00
Clerk (Overseer of the Poor).....	1,200.00
Milk Inspector	375.00
Laboratory maintenance	400.00
Co. Hospital Public Health Laboratory	720.00
Mileage (Estimated) 10c per mile for doctor and county nurse.....	1,000.00
	<hr/> \$9,095.00

PROPOSED INCOME FOR COUNTY HEALTH UNIT

County—Clerk (Overseer of Poor).....	\$1,200.00
City of Washington:	
Health Officer	\$ 150.00
Milk Inspection	375.00
Ind. Sch. Dist. Washington:	525.00
Physician	350.00
Nurse	1,500.00
Public Health Laboratory, Co. Hospital	1,850.00
Red Cross, Washington County.....	720.00
	300.00
	<hr/> \$4,595.00
Washington County	2,000.00
Rockefeller Foundation (1/4 of total)....	2,000.00
	<hr/> \$8,595.00
Additional	500.00
	<hr/> \$9,095.00

"Washington County, Iowa, to assist in carrying out the above program agrees to appropriate the sum of \$2,000.00 or so much thereof as may be necessary, which sum is in addition to the salary of the Overseer of the Poor.

"The City of Washington and the Independent School District of Washington shall file with the County Auditor of Washington County at the end of each six months a verified statement of the funds expended by each of them under this program. All other funds derived from outside sources for the benefit of this program shall be deposited with the County Treasurer and payment therefrom made only upon warrants duly issued on verified claims regularly filed and allowed by the Board of Supervisors.

"Supervisor B. N. Jessen offered and moved the adoption of the foregoing resolution, seconded by Supervisor R. E. Brown, upon roll call the vote was:

"Ayes: Ed Kos, R. E. Brown and B. N. Jessen.

"Nayes: None.

"Passed and approved this 26th day of February, 1930."

ADDITIONAL GIFTS TO THE STATE MEDICAL LIBRARY

Dr. Jeanette Dean-Throckmorton reports the following additional gifts to the Iowa State Medical Library: Dr. David Blum, Des Moines, 53 journals, Dr. Jennie Coleman, Des Moines, 238 journals, Dr. D. S. Fairchild, Clinton, 213 books and 850 journals, Dr. D. J. Glomset, Des Moines, 96 journals, Dr. S. E. Hinshaw, Newton, 353 journals, Dr. Ross Huston, Des Moines, 50 journals, Dr. G. C. Moorehead, Ida Grove, 6 valuable old books, Dr. E. R. Posner, Des Moines, 190 journals, Mrs. T. E. Powers, 120 books, Dr. C. E. Ruth, Des Moines, 50 books, Dr. Granville Ryan, Des Moines, 119 journals, Dr. C. V. Watts, Williamsburg, 54 journals, Dr. Alice Humphrey Hatch, Des Moines, 176 journals and 18 books, Dr. J. W. Osborne, Des Moines, 113 journals, Iowa State Board of Health, 69 journals, and Methodist Hospital, 293 journals.

WARNING

Iowa physicians are warned to be on the lookout for an Earl Hanes representing himself as state agent for the Physician's Protective Casualty Company of Chicago. The State Insurance Department states that this is a fake insurance proposition, and asks that the department be immediately notified upon his appearance in any Iowa community.

ANNUAL MEETING OF IOWA TUBERCULOSIS ASSOCIATION

The Annual Meeting of the Iowa Tuberculosis Association and also the Iowa Sanatorium Association and the Iowa Heart Association took place in the Martin Hotel in Sioux City, February 27 and 28. The meeting was attended by a considerable number of Iowa physicians who are active in public health work and who contributed fully one-half of the program.

President John H. Peck of the Iowa State Medical Society is also president of the Iowa Tuberculosis Association and presided at the business sessions as well as at the annual dinner held the evening of Thursday, February 27.

Dr. E. A. Meyerding, secretary of the Minnesota State Medical Society presented two papers, Following Through In Tuberculosis and A One Thousand Dollar Health Program In a Small City. Dr. J. A. Meyers of the University of Minnesota and president of the Minnesota Health Association spoke on Tuberculosis as a Family Disease, and the paper was discussed by Dr. W. D. Runyon of Iowa City.

The State Department of Health was represented by Dr. H. A. Lanpher, who read a paper on the New Public Health which was discussed by Dr. R. H. McBride of Sioux City, and also by Dr. D. C. Steel-smith, Deputy Commissioner of Health, who discussed the paper upon County Health Units read by Dr. E. B. Godfrey, the newly appointed Sioux City health physician. Dr. Daniel J. Glomset of Des Moines talked on the Senescent Heart, and also appeared on the banquet program.

Dr. J. C. Painter of Dubuque who is secretary of the Iowa Sanatorium Association read a paper, Who is Responsible for the Prevention of Tuberculosis which was discussed by Dr. W. D. Runyon of Sioux City, Dr. S. A. Slater of Worthington, Minnesota, presented a paper, Does Northwest Iowa Need a County Sanatorium? which was discussed by Dr. F. P. Winkler, of Sibley. Dr. W. R. Brock led the discussion on Relation of Bovine Tuberculosis to Public Health, by E. S. Dickey, inspector in charge U. S. Bureau of Animal Industry. The Managing Directory of the Iowa State Medical Society, Mr. Blank, presided at the morning session and in his opening remarks briefly discussed cooperation between the two organizations.

DONATION TO PARIS MEDICAL SCHOOL

The Rockefeller foundation has recently announced their willingness to contribute \$12,000,000 to the Paris Medical School provided this amount can be supplemented by a suitable contribution from the citizens of Paris. The site for this new medical center has been selected, and the hospital, if erected, will be readily accessible to the poor districts of Paris.

Activities for County Medical Societies

[EDITOR'S NOTE: In response to numerous requests from county society officers for advice as to how their society could be made more active, the managing director with the counsel of various officers of the state society prepared the following outline of such activities. The outline is printed here so that it may not only come to the attention of county society officers but that all the members may at a glance secure a general idea of interesting and fruitful projects which the active county society may undertake.]

I. Unity and Harmony:

One hundred percent membership of qualified physicians in each county is the first step towards unity. (Eligibility, except in cases of appeal to the Council as provided by the state constitution, is determined by the Board of Censors of the county society.) After that, unity and harmony within the ranks can best be attained through whole-hearted cooperation in carrying out the activities listed below.

II. Scientific Work and Programs:

A. Regular monthly meetings should be held except possibly during the summer months. A dinner preceding the session, a simultaneous meeting of the wives (or Woman's Auxiliary), or special features on the program, and attractive announcements mailed a few days before the meeting, will help create interest in the programs and increase attendance.

B. Sources of Programs are:

1. The Local members; for papers, case reports, etc.
2. The State Society Program Bureau will furnish:
 - a. Entire programs.
 - b. Papers, on any subject.
 - c. Clinics. (Generally dry, diagnostic.)
 - d. Motion Pictures.
 - e. Post-Graduate Courses in cooperation with the State University.
3. Faculty members from the medical colleges of the middle west, the Mayo Clinic, and other similar institutions are available to county societies.

4. Medical Economics should be the subject of one or two meetings each year:

- a. To discuss state and local aspects of legislation and public health.
- b. To deal with such subject as fee bills, and other personal problems in the field of medical economics.
- c. To consider the problems and prospects of organized medicine. (Note: Officers of the State Society are always available for discussions of county and state activities.)

C. Encourage attendance at District, State and National Medical Meetings.

III. Legislation, Politics:

A. Each county society should have a Legislative Committee, the members being selected for their interest and activity in local politics. This committee should either have as a member, or closely cooperate with, the deputy coun-

cilor, since he acts as liaison officer between the State Legislative Committee and the county society.

B. A careful check should be kept on all pending medical and health legislation, and the attitude of the society should be* communicated to the Legislative Committee of the state society, or, through the delegate, to the House of Delegates where general legislative policies are determined.

**Important Note:* In no case should votes or other actions of a county society be given to the public or legislators, unless in accordance with previously determined state society policies. Lack of unity is sure death to a legislative program.

County Society Activities

The Model Constitution for component county societies sets forth a series of purposes in article two and the following is an elaboration of these specific objectives.

- I. Unity and Harmony.
- II. Scientific Work and Programs.
- III. Legislation and Politics.
- IV. Public Health.

These projects are explained in more detail on this page.

C. *Maintain a constant contact with candidates before primaries and elections:*

Know their attitudes toward health and medicine. Have the various candidates appear before the society prior to election and discuss these matters with them, urging that they go to the state society Legislative Committee for professional advice in public health matters just as they go to a private physician in personal medical matters.

D. *Work for votes for the right man:*

Every member of the society should take an active part. The county medical society can be the strongest single political power within the county, if its members will exert the tremendous influence they have!

E. During the General Assembly, let your legislators know by letter, telegram, telephone and personal words, that you are following their activities regarding health and medical legislation.

IV. *Public Health:*

A. Each county society should have a committee on public health activities or public relations, whose duties would include:

1. Advising with all lay organizations engaging in any kind of health work, regarding their programs and activities.
2. Making recommendations to the society regarding approval (or not) of such lay health undertakings. (Note: Several Iowa societies have recently brought such activities under professional supervision by adopting substantially the following resolution: "That no member of the.....County Medical Society shall contribute free professional services to any hospital, health center, clinic or other health or social agency unless both the institution and its activities shall have been approved by the county society.")
3. Investigating the possibility of a County Health unit as permitted by the new law on that subject.
4. If no other special committee exists for the purpose, the conduct of such lay educational measures (lectures, motion pictures, newspapers, etc.), as are feasible within the county. Note: Such education should be devoted largely to advocating the necessity of scientific medi-

cine, rather than to personal hygiene, etc.

B. Care of the Indigent Sick:

1. Sociological Aspects:

This problem often estranges county officials and many citizens from the medical profession because of differences over procedure in the treatment of sick paupers and payment therefor.

2. Official Responsibility:

The county society should seek first to establish the legal fact that the Iowa Statutes contemplate payment in full for all properly authorized medical services. (See Sections 5320 to 5334 of the Iowa Code.)

3. The County Contract:

Some mutually acceptable arrangement should be made between the county supervisors and the county medical society. There are several varieties of contracts covering such services which are now operating satisfactorily here in Iowa. (Detailed information may be obtained from the State Society office.)

DR. CHEVALIER JACKSON'S CLINIC

Dr. Chevalier Jackson, who for many years held the chair of Professor of Bronchoscopy in Jefferson Medical College and the University of Pennsylvania Graduate School of Medicine, has recently announced his retirement from these two important positions. Dr. Jackson expects in the future to devote his entire attention to a bronchoscopic clinic which he has developed at the Samaritan Hospital in conjunction with his professorship at Temple University School of Medicine. He will be assisted in this bronchoscopic clinic by his son, Dr. Chevalier L. Jackson, who will be clinical professor of bronchoscopy and esophagoscopy, and by Dr. Emily L. Van Loon, who will be chief of the clinic. The bronchoscopic clinic at Jefferson Medical College will be directed after June 1 by Dr. Louis H. Clerf and Dr. Edmon Auccin. The bronchoscopic clinic at the University of Pennsylvania will be directed by Dr. Gabriel Tucker.

MEDICAL EDUCATION IN THE U. S.

During 1928-29, the seventy-five recognized medical schools in this country enrolled 20,878 students and graduated 4,446. The United States has one-sixteenth of the world's population and one-fourth of the recognized medical schools.

SOCIETY PROCEEDINGS

Boone-Story Society

Forty members of the Boone and Story Counties Medical Association met in regular session January 28, at the Hotel Sheldon-Munn in Ames. C. B. Luginbuhl, M.D., of Des Moines was the speaker of the evening, giving an illustrated lecture on Ulcers of the Stomach, after which a four reel motion picture on ulcers and the technique of operation was shown.

Bremer County Annual Meeting

The members of the Bremer County Medical Society held their annual meeting and election of officers January 21, in Waverly. The results of the election are as follows: Dr. F. J. Epeneter of Denver, president; Dr. L. D. Jay of Waverly, vice-president; and Dr. M. N. Gernsey of Waverly, secretary and treasurer.

Calhoun County

Thursday, February 20, the regular meeting of the Calhoun County Medical Society was held in Pomeroy. Charles I. Taylor, M. D., of Pomeroy was in charge of the meeting and presented a paper on Fractures of the Humerus.

Cerro Gordo County

The Cerro Gordo County Medical Society held its regular meeting Tuesday, February 18, 1930, at the Hotel Hanford. Dinner at 6:30.

Following a short business meeting, C. W. Baldridge, M.D., Associate Professor in Medicine, State University of Iowa, gave a very interesting talk and lantern slide demonstration of the Systematic Manifestations of Vascular Disease of the Kidney as contracted with Tubular Disease.

The discussion was opened by Dr. L. R. Woodward, Mason City, followed by Dr. E. L. Wurtzer of Clear Lake, and Dr. J. E. Marek of Mason City.

Delaware County

Thursday, February 20, the regular meeting of the Delaware County Medical Society was held in Manchester. Dr. Fred F. Agnew of Independence, who is Councilor for the Third District was present and gave a short talk. Otis W. Britt, M.D., of Waterloo presented the scientific program, reading a paper on X-ray in Relation to Gall Bladder Diagnosis.

Fremont County Annual Meeting

The members of the Fremont County Medical Society were the guests of Dr. B. B. Miller of Tabor at a six-thirty dinner, Friday, February 14, after

which the following scientific program was presented: Vaccines and Antitoxins, Jack Treynor, M.D., Council Bluffs; Surgical Treatment of Goitres, M. E. O'Keefe, M.D., Council Bluffs; and Medical Treatment of Goitres, A. A. Johnson, M.D., Council Bluffs. After the program, the business meeting was held, and the 1929 officers re-elected for 1930. They are as follows: Dr. L. A. Baldwin of River-ton, president; Dr. H. P. Cole of Thurman, vice-president; Dr. A. E. Wanamaker of Hamburg, secretary and treasurer; Dr. J. M. Hughes of Hamburg, delegate; and Dr. A. R. Wanamaker of Hamburg, alternate. The Board of Censors is composed of Dr. William Kerr of Randolph, Dr. Ralph Lovelady of Sidney, and Dr. B. B. Miller of Tabor.

A. E. Wanamaker, M.D., Secretary.

Grundy County Annual Meeting

Tuesday, February 11, the Grundy County Medical Society met and elected the following officers for 1930: Dr. E. A. Crouse, president; Dr. W. O. McDowell, vice-president; Dr. Henry L. Mol, secretary and treasurer; Dr. M. H. Thielen, delegate; and Dr. G. R. Gould, alternate. Vernon D. Blank, Managing Director of the State Society, reported upon various society activities with special reference to legislation and care of the indigent sick.

Johnson County

The Johnson County Medical Society met in regular monthly session February 5, at six P. M., in the American Legion Building. Eighty-six members and guests were present for the dinner. Six members who were unable to attend the dinner came in for the scientific program. The two papers, Paranasal Sinusitis, Paul Moore, M. D., and Preventive Pediatrics, J. D. Boyd, M.D., were very well received, and elicited a lively, interesting discussion.

George C. Albright, M.D., Secretary.

Monona County Annual Meeting

The Monona County Medical Society met at Onawa on January 20th, with the usual dinner at six o'clock. During the business session, the following officers were re-elected: Dr. Paul Beppler of Onawa, president; Dr. Paul Ingham of Mapleton, vice-president; Dr. Edward Liska of Ute, secretary and treasurer; Dr. Emil C. Junger of Soldier, delegate and Dr. M. O. Stauch of Whiting, alternate. Plans were laid to form a county credit bureau among physicians belonging to the society. Our guest of the evening, Dr. D. C. Steelsmith, spoke upon the County Health Unit.

Edward J. Liska, M.D., Secretary.

Polk County

Tuesday, February 25, the members of the Polk County Medical Society met in regular session and the following program was presented: Infection of Patella, F. W. Fordyce, M.D., and The Head Specialties in Medical Practice, George A. May M.D. Mr. E. M. Kingery of Des Moines was introduced as the newly elected executive secretary of the Polk County Society, and it was announced that he was to begin his duties March 1.

Poweshiek County

Members of the Poweshiek County Medical Society met in Grinnell, Wednesday, February 12, and were addressed by Anatole Kolodny, M.D., of Marshalltown on Diagnosis of Intra-cranial and Intra-spinal Pathology based on a Study of the Fourth Circulation.

Scott County

F. J. Rohner, M.D., of Iowa City was the speaker of the evening at the regular monthly meeting of the Scott County Medical Society held in Davenport, Tuesday, February 4. His subject was The Diagnosis and Treatment of Pernicious Anemia.

Washington County

Tuesday, February 4, the Washington County Medical Society held its regular meeting at the Nurses Home in Washington. Professor F. R. Peterson of the State University of Iowa presented the scientific program which consisted of a lecture on Fractures and lantern slide illustrations.

Webster County

On Tuesday evening, February 18th, the Webster County Medical Society met in the classroom of St. Joseph's Mercy Hospital at 8:30 P. M. Dr. W. A. Rohlf of Waverly, Iowa, President-elect of the Iowa State Medical Society gave a very interesting and decidedly instructive paper with the subject: "Mistakes in Diagnosis." Following the paper there was a good response with discussion entered into by most of the doctors present at the meeting.

The Society was gratified in having ten guests present at this meeting.

John C. Shrader, M.D., Secretary.

Winneshiek County

On February 14, the members of the Winneshiek County Medical Society met in Dr. A. F. Fritchen's office in Decorah for the purpose of electing a committee of three doctors to assist the board and architect in the construction of an addition to the hospital. Those elected are: Dr. Otto O. Svebakken, Dr. A. F. Barfoot and Dr. A. F. Fritchen. So far they have raised over \$40,000 for the new addition.

Woodbury County

The regular meeting of the Woodbury County Medical Society was held at the Elks Club, Friday, February 14. The following scientific program was presented: The Management of Difficult Labor, Frank J. Murphy, M.D.; Version, James F. Taylor, M.D.; and The Place of Forceps and Version in Modern Obstetrics, Norman F. Miller, M.D., Iowa City. The program was most instructive and entertaining, and was enjoyed by the fifty-five members and guests present.

Roscoe Jepson, M.D., Secretary.

SIOUX VALLEY MEDICAL SOCIETY

The thirty-fifth annual winter session of the Sioux Valley Medical Association which was held at Sioux City, Iowa, January 29 and 30, 1930, proved to be the most largely attended and interesting meeting in the history of the Society. When Dr. Emil C. Junger of Soldier, Iowa, President of the Society called the meeting to order, Thursday morning in the main ballroom of the Martin Hotel, he was greeted by a packed auditorium of three hundred physicians. A talking motion picture by Joseph B. DeLee, M.D., of Chicago was shown depicting Extraperitoneal Caesarean section. Other pictures followed showing Perineal Prostatectomy, Nephrectomy with Paraverterberal Anaesthesia and Diaphragmatic Hernia.

Henry F. Helmholz, M.D., Head of Department of Pediatrics, Mayo Clinic, Rochester, then conducted a very interesting pediatric clinic demonstrating a large number of cases. Hilding Berglund, M.D., Head of Department of Internal Medicine, University of Minnesota Medical School, Minneapolis, conducted a medical clinic. J. F. Ritter, M.D., of Maquoketa, Iowa, gave a paper on, Principles of Practical Endocrine Therapy and injected a series of cases with a gland product for the purpose of reducing high blood pressure. This was followed by other motion pictures.

During the noon hour the doctors appearing on the program and others were entertained at luncheon with Dr. William Jepson of Sioux City acting as host. The afternoon session consisted of papers by J. W. Duncan, M.D., Associate Professor of Surgery, Creighton University, Omaha, Nebraska. This was followed by a talk by John H. Peck, M.D., President of Iowa State Medical Society, Des Moines, Iowa, on Some Features of Tuberculosis. Then a paper was given by Henry F. Helmholz, M.D., of Rochester, on Diagnosis and Treatment of Pyelitis in Infancy and Childhood. The afternoon session was concluded by Hilding Berglund, M.D., Minneapolis, who gave a talk on Analysis of the Anemia Situation.

The papers were all wonderfully illustrated by lantern slides and motion pictures and were well received. At 6:30 P. M. the doctors and their wives gathered for the annual banquet with the hall taxed

to capacity. During the dinner hour entertainment was furnished by the radio broadcasting orchestra of Sioux Falls, South Dakota, accompanied by Marion Y. Fonville of Sioux Falls and Mrs. Frederick Roost of Sioux City as soloists. Mrs. P. B. McLaughlin and Mrs. J. C. Decker of Sioux City assisted in the arrangements for the banquet.

At the conclusion of the dinner Dr. Willard T. Conley extended a welcome to the guests and introduced Dr. W. R. Brock of Sheldon, Iowa, who acted as toastmaster. The gathering was addressed by Dr. E. C. Junger of Soldier, Iowa, President of the Society; Dr. Herman James, President of the University of South Dakota; Dr. John H. Peck, President of Iowa State Medical Society; Dr. Wm. Jepson of Sioux City; Dr. Arthur E. Hertzler of Halstead, Kansas; Dr. G. R. Albertson, Dean of Medical School, University of South Dakota; Dr. Henry F. Helmholz, Rochester, and Vernon D. Blank, Managing Director of the Iowa State Medical Society.

The second day's session opened with J. C. Ohlmacher, M.D., who is head of the department of Pathology of the University of South Dakota Medical School and Vice-president of the Association for South Dakota, presiding. A series of motion pictures were presented depicting Breech Delivery, Eclampsia and other features of surgical and obstetrical technique. Lewis J. Pollock, M.D., Head of Department of Neurology, Northwestern University Medical School, Chicago, conducted a Neurological Clinic; this was followed by a Goiter Clinic with Arthur E. Hertzler, M.D., Head of Department of Surgery, University of Kansas Medical School in charge.

The afternoon session consisted of a paper, The Diagnosis of Peripheral Nerve Lesions by Lewis J. Pollock, M.D. This was followed by an illustrated lecture Diagnosis and Treatment of Arthritis and Allied Conditions by Ernest E. Irons, M.D., Head of Department of Internal Medicine, and Dean of Rush Medical College, Chicago, and then Arthur E. Hertzler, M.D., addressed the meeting with a humorous and a very much worth while talk on, The Country Doctor Looks on Stomach Complaints.

There was a brief business session at which time it was decided to hold the usual one-day summer meeting at Sioux Falls, South Dakota, in conjunction with the meeting of the South Dakota State Medical Association. The officers of the association were highly gratified by the large attendance and great interest manifested in this meeting. The entire student body of the Medical School of the University of South Dakota headed by Dr. G. R. Albertson, their Dean in charge, was present for the two days' session. The members of the local committee in charge of arrangements were: Dr. John H. Henkin, chairman, Dr. Roy F. Bellaire, Dr. Willard T. Conley and Dr. J. A. Dales.

John H. Henkin, M.D., Secretary.

LINN COUNTY WOMAN'S AUXILIARY ORGANIZED

The wives of doctors in Linn county organized a Woman's Auxiliary Wednesday, February 12, at a luncheon meeting held at the Chamber of Commerce in Cedar Rapids, with Dr. Emma J. Neal, treasurer of the Linn County Medical Society, presiding.

Officers were elected as follows: Mrs. James M. Knox, Cedar Rapids, president, Mrs. George W. Gearhart, Springville, vice-president, Mrs. B. F. Wolvertson, Cedar Rapids, secretary, and Mrs. John Stansbury, Cedar Rapids, treasurer.

After the election of officers Dr. Emma J. Neal, and Mrs. Frederick G. Murray, secretary of the Woman's Auxiliary to the Iowa State Medical Society outlined the purposes and aims of a woman's auxiliary.

PERSONAL MENTION

Dr. Eugene A. Crouse of Grundy Center will have completed sixty years of active practice on March 10, 1930, fifty-eight of which have been spent in Grundy Center.

Dr. W. A. Rohlf of Waverly went to Waterloo Monday, February 17, and gave his illustrated lecture on Hawaii at a meeting of the Knights of Pythias.

Dr. Edward F. Hagen of Decorah has purchased the practice and office equipment of the late Dr. A. E. Conrad. He moved into the former Conrad offices about the first of March.

Dr. Frank J. Rohner, formerly of Carroll, was recently elected president of the staff of Mercy hospital at Iowa City.

Dr. E. J. Goen who has been practicing in Greeley for a number of years, has decided to locate in Decorah, and is planning to leave Greeley about March first.

Dr. D. C. Steelsmith of Des Moines was the speaker at the weekly meeting of the Iowa City chamber of commerce Monday noon, February 24. His subject was "The Proposed County Health Unit for Iowa City and Johnson County."

Dr. Emil C. Junger of Soldier gave a lecture in Woodbine, Friday evening, February 7, on the subject, "Why Be Sick if You Don't Like It?"

Dr. T. C. Knox, formerly of Marcus, is locating in Corwith, which has not had a resident physician for some time.

Drs. Walter L. Bierring, and Tom B. Throckmorton of Des Moines were recently honored by being elected to offices in the American College of Physicians. Dr. Bierring was elected to the board of regents, and Dr. Throckmorton to the board of governors.

Dr. Harry P. Smith, formerly associated with the University of Rochester, has been appointed head of the department of pathology and bacteriology at the State University of Iowa. Dr. Smith is a graduate of the University of California Medical School, and has studied at Columbia University. Before joining the staff of the University of Rochester, he was a faculty member at Johns Hopkins university.

Dr. and Mrs. Carl Matthey of Davenport are the parents of a baby daughter, born Saturday morning, February 1, at the Mercy Hospital in Davenport.

Celebrate Golden Anniversary of Two Burlington Physicians

Drs. Nathaniel M. McKitterick and Henry B. Young were the honor guests at a banquet of the members of the Des Moines County Medical Society in Burlington, Tuesday, February 11, to celebrate the completion of fifty years of practice in Burlington by each of the doctors. Dr. John T. Hanna presided as toastmaster, and presented the following speakers: Drs. Edward J. Wehman, Burlington; William Jepson, Sioux City; John H. Peck, Des Moines; William A. Rohlf, Waverly; Ernest I. Woodbury, Burlington; and Albert C. Moerke, Burlington.

MARRIAGES

Tuesday, February 11, Miss Ethel Watt of Omaha, and Dr. William E. Ash of Council Bluffs, were united in marriage at Omaha. Immediately after the wedding breakfast, Dr. and Mrs. Ash left for California where they will visit relatives in Los Angeles and San Francisco. Before returning they will stop in Agua Caliente, Mexico, and Seattle, Washington. After April first they will be at home in Council Bluffs.

OBITUARIES

Stanger, George Henry, of Boone, died February 19 at the age of sixty-four as the result of cardiac failure; graduated in 1892 from the University of Illinois College of Medicine. At the time of his death he was a member of the Boone County and Iowa State Medical Societies.

Dr. Charles Sumner Chase

Twenty-five years this fall I connected myself with the State University of Iowa Medical School and then had the pleasure of meeting Dr. Chase, who was the professor of Pharmacology in the Medical School.

Like everybody else, I was attracted by his very warm personality—kind and genial, and with a warm heart for his students. I doubt if Dr. Chase had an enemy in the world. He conducted the Department of Pharmacology with great success and loving-kindness until he felt the time had come for his re-

tirement and was succeeded by Dr. O. H. Plant. However, Dr. Chase was in the harness until his last days because, though he had been elected Professor Emeritus, he still was very active in the publicity of the medical school, and every year he was insistent on the medical school giving an exhibition at the Iowa State Fair. He also addressed the various high schools of the State, with the idea of encouraging young ladies to enter this institution and receive training in nursing; so we can practically say that Dr. Chase died in his harness, active, interested, and always congenial.

Such a lovely spirit will always be a great stimulation to the rest of us not to forget the human side of life, and his memory will be cherished as long as life.

—Henry James Prentiss, M.D.

UNITED STATES CIVIL SERVICE EXAMINATIONS

The United States Civil Service Commission announces the following open competitive examinations:

Trained Nurse

Trained Nurse (Psychiatric)

Applications for trained nurse, and trained nurse (psychiatric) must be on file with the Civil Service Commission at Washington, D. C., not later than April 8.

The examinations are to fill vacancies in the Panama Canal Service.

The entrance salary for nurses is \$168.75 a month, with promotion at the end of the first year's service to \$175 a month, at the end of three years' service to \$181.25 a month, at the end of six years' service to \$187.50 a month, at the end of ten years' service to \$193.75 a month, at the end of fifteen years' service to \$200 a month.

The entrance salary for psychiatric nurses is \$168.75 a month, with promotion at the end of one months' service to \$175 a month, at the end of two months' service \$181.25 a month, at the end of two years' service \$187.50 a month, at the end of four years' service \$193.75 a month, and at the end of six years' service \$200 a month.

Competitors will be rated on practical questions in anatomy, hygiene, and nursing, and on their education, training, and experience.

Full information may be obtained from the United States Civil Service Commission, Washington, D. C., or from the secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city.

Head Social Worker (Medical), \$2,100 a year

Applications for head social worker (medical) must be on file with the Civil Service Commission at Washington, D. C., not later than March 26.

The examination is to fill a vacancy in the U. S.

Public Health Service, Ellis Island, N. Y., and vacancies occurring in positions requiring similar qualifications.

The entrance salary is \$2,100 a year. Higher-salaried positions are filled through promotion.

The duties are to perform miscellaneous social service for patients' comfort and welfare; to secure histories, make purchases, maintain recreational activities and supervise recreation rooms.

Competitors will not be required to report for examination at any place, but will be rated on their education, training, and experience, and on a thesis or publications.

Full information may be obtained from the United States Civil Service Commission at Washington, D. C., or from the Secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city.

LECTURES IN SOCIAL RESEARCH FOR PHYSICIANS

The new school for Social Research at 465 West 23rd Street, New York, has just announced a course of eight lectures to be given by Dr. Fritz Wittels, M.D., of Vienna, on the subject of psychoneuroses. This course, maintained solely for physicians is a new departure in Social research, and one of obvious merit. Dr. Wittels is a former associate of Freud, and will bring into his lectures much of psychoanalysis, as taught in the Vienna schools.

FAVORABLE REPORTS IN THE TREATMENT OF LEPROSY

Due to discoveries in the treatment of leprosy within the past decade, recoveries from this serious affliction have been reported. Recently four lepers were released from the Federal leprosarium at Carville, La. According to the reports from the United States Public Health Service this brings the number released up to sixty. Of this number, only one has been forced to return to the leprosarium for additional treatment.

THE INTERNATIONAL MEDICAL CLUB

A few years ago in New York City, the International Medical Club was organized by a group of foreign medical graduates residing and practicing in the State of New York. It was felt at that time that the organization was fully justified, since there were over 5,000 foreign born physicians in New York State alone, and throughout the country, thousands of medical graduates from foreign universities. This organization has grown and has apparently filled an existing need.

In a recent communication, their president, Dr. Jacques W. Maliniak, has announced the objects of the Society as follows:

1. The promotion of social and scientific relations between foreign and American graduates residing or practicing in the United States of America, to the end that a better mutual understanding may ensue between them.
2. The establishment of social and scientific contacts between all recognized foreign language medical societies organized in the United States of America.
3. The promotion of friendly and scientific relations between this Society and other recognized organizations instituted in foreign countries with similar objects.
4. The extension to members of this Society of the privilege of being introduced officially to corresponding medical groups in foreign countries; thus establishing personal contacts with prominent medical men and facilitating the pursuit of their post-graduate studies, medical visits and pleasure trips abroad.
5. The promotion of the objects sought by distinguished foreign medical visitors and also by members of corresponding medical groups established in foreign countries, while they are on this continent; extending to these visitors in a spirit of reciprocity, all the privileges granted by Section 4 to members of this Society during their visits abroad.

Those interested in this organization may receive further details by addressing the office of the Club at 1125 Park Avenue, New York City.

IMPORTATION OF PARROTS TEMPORARILY BANNED

A special news dispatch from Washington, D. C., to the New York Times states that an executive order temporarily barring the importation of parrots into the United States from any country was issued by President Hoover on January 24. The order is designed to check the spread of psittacosis or "parrot fever" and reads as follows:

RESTRICTING FOR THE TIME BEING THE INTRODUCTION OF PARROTS INTO THE UNITED STATES:

WHEAEAS there has been officially reported in widely separated portions of the United States since the middle of December, 1929, a considerable number of human cases, some of them fatal, of a disease communicated by infected parrots; and

WHEREAS there is evidence that such parrots have been introduced from ports outside of the Continental United States; and

WHEREAS there exists danger of further such introduction;

THEREFORE, in order to prevent the further introduction of disease communicable from parrots to human beings from ports outside of the Continental United States into the United States, by virtue of the authority vested in me by Section 7 of the Act of Congress approved February 15, 1893, entitled "An act granting additional quarantine powers and imposing additional duties on the Marine Hospital Service," it is ordered that no parrots may be introduced into the United States or any of its possessions or dependencies from any foreign port for such period of time as may be deemed necessary, except under such conditions as may be prescribed by the Secretary of the Treasury.

This order shall take effect from and after this date.

HERBERT HOOVER.

The White House,
Jan. 24, 1930.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

DR. DAVID S. FAIRCHILD, Clinton, Chairman

DR. WILLIAM JEPSON, Sioux City
DR. FRANK M. FULLER, Keokuk

DR. ARTHUR D. WOODS, State Center
DR. WALTER L. BIERRING, Des Moines, Secretary

IOWA PHYSICIANS WHO CULTIVATED OTHER FIELDS THAN THE PRACTICE OF MEDICINE.

David S. Fairchild, M.D., F.A.C.S., Clinton

The state of Iowa covered a wide area with a relatively small population in 1870. There were a few towns along the Mississippi River of considerable importance and influence, but in the interior, the county seats, and the trading points, grew slowly with the extension of railroads and with the natural increase in population, as the country about settled up by the opening of new farms.

With the settlement of the country came men of culture and education, professional men and men of affairs, who availed themselves of opportunities to settle in important centers when the right moment came. Often a life time was spent in finding the right place. During this period of waiting it sometimes happened that the dream of a distinguished professional career gave place to a more material and nearer at hand plan. The practice of medicine at this time was individualistic. Scientific methods had not advanced far and the doctor's time was largely given to the personal care and observation of patients, with more or less extensive reading, according to taste, and environment. Thus did the doctor have time and disposition to take a part in public affairs without involving a conflict of interests, sometimes in educational affairs, or in a civic way as councilor or mayor of his town, or politically as a member of the legislature.

The doctor was not yet a technician, but a man who went about with stethoscope and fever thermometer, to determine from the symptoms and physical findings what the disease was and what would be the best medicine to give. The doctor's library was not large, a few textbooks and two or three medical journals were found in his office, if he was a progressive doctor. He generally at-

tended some local medical society and sometimes attended the State Medical Society.

There were then, as now, medical practitioners who looked upon their profession as a trade; many of these were soon found out and moved on from community to community without becoming an established doctor. It was generally recognized that a doctor's training especially fitted him to serve the public.

In the early settlement of Iowa, as far back as 1870 or later, it was generally felt that if the doctor in the community was worthy, he was an important factor in organization and development; so if we make a survey of the state for the purpose of recording names of physicians who in addition to their skill as practitioners rendered valuable services to the public in non-medical ways, we shall find many men who have been forgotten by the medical profession and often by the communities they served.

It is a natural ambition for normal man to be thought well of in life and also to have his memory remain green, at least for one generation. The Iowa State Medical Society on three or four occasions has adopted resolutions providing for the gathering and preservation of records of deceased members. Many of these records are scattered through the published records since 1868, but prior to that time the records and traditions had been handed down from generation to generation.

The first physician who located in Iowa with the definite purpose of practicing medicine was Dr. Frederick Andros, who "opened an office" in Dubuque in 1833. At that time the population of the Territory of Iowa was 10,531. Dr. Andros graduated A.B., from Brown University in 1822 and M.D., from the same University in 1826. (At the time referred to Brown University maintained a medical school.)

When Dr. Andros came to Dubuque in 1833, it was but a small village and could not afford the

Doctor much practice, so in 1837 he removed to Clayton County, where he engaged in farming. In 1845 having received the appointment of surgeon to the Fort Atkinson and Winnebago Agency, he resumed practice at the Agency and continued with the Indians until 1854. When they were removed from Fort Atkinson to Long Prairie, Minnesota, in 1848, Dr. Andros chose to remain with the Indians six years longer. Whether he preferred the civilization of the Red Man to that of the white, we are not informed, but he was evidently restless under white civilization. In 1854 Dr. Andros returned to Garnaville and in 1861 moved to McGregor, where he remained in active practice about twenty years, when at the age of 80 years—according to Dr. Clark, living in Iowa became too tame and irksome for Dr. Andros he moved to Dakota, where he practiced ten years and at the age of 90 years moved to Minneapolis, where he died a year later.

There was nothing particularly noteworthy in Dr. Andros' medical practice, but his biography is interesting in that it illustrates the type of men who came out into the West, not as in the rush for gold, but for the adventure of growing up in a new country—so well presented by Hamlin Garland in the stories of the "Middle Border." It is not apparent that Dr. Andros gained either wealth or glory in his adventures. It was only by chance and through the courtesy of Dr. William Watson of Dubuque in 1876 and later of Dr. Clark of McGregor that this biographical sketch could be procured.

Dr. Isaac Galland, with his family, came to Nashville on the Mississippi River in 1827, not with the definite purpose of practicing medicine but to build up a city at Montrose; he failed on account of the greater advantages at Keokuk, where Dr. Muir established himself later by building the first log cabin. Dr. Galland was born in 1790 and came to Lee County in 1829. We are not informed where he gained his medical education, although it is said he studied in Fulton County, Illinois, also that he was a brilliant and successful physician and that he practiced at different places in Iowa and Illinois. Dr. C. F. Wahrer says, that "far and wide" over a large field, in almost every cabin he (Dr. Galland) placed a chest or box about a foot cubic, on which in red letters was painted the legend "Dr. Isaac Galland's Family Medicines." It may readily be supposed that in a wide area of new country, with very few doctors, such a box with all the mysteries it contained, would be a great comfort to the settlers in sickness.

It is apparent that Dr. Galland had some literary skill and ability, for Dr. Benjamin F. Gue informs us in his History of Iowa, that Dr. Galland started the second newspaper published in Iowa (1836), the Western Adventure. Two years later the paper was sold to James G. Edwards and the name changed to Madison Patriot. In the columns of this paper he left a description of the prairies and waters of Iowa, its animals, serpents, birds, plants and Indians, their life and habits, which showed him to be an able writer and historian. He also wrote a history of Iowa, made a map of Iowa, and in 1840 wrote a book "The Iowa Immigrant," now almost extinct. The first school was organized by Dr. Galland and taught by Geryman Jennings. The first white child born in Iowa was Eleanor Galland, a daughter of Dr. Galland in 1830.

Among other activities Dr. Galland was private secretary to Prophet Joseph Smith and was also an active Mormon elder. (A more detailed account may be found in Vol. I.)

Samuel C. Muir, a graduate of the University of Edinburg, Scotland, was a surgeon in the United States Army and was employed in the Government service along the Mississippi River. About 1820 he resigned and settled on a large farm at the mouth of the Des Moines River, where he died of cholera in 1832. Dr. Muir was the first white settler in Keokuk, which he and Dr. Galland laid out and named many of the streets of the future city, and Dr. Muir built the first log cabin in Keokuk.

It does not appear that there was much practice for these two doctors. Dr. Muir devoted himself to his land interests and Dr. Galland to any interest that might arise. It is said that Dr. Muir and Dr. Galland were very good friends and worked together in the treatment of the sick and building up the city of Keokuk. Dr. Galland died in 1858 and was buried at Fort Madison.

(A more detailed account of these two men may be found in Vol. I, History of Medicine in Iowa.)

Dr. George W. Richards' claim to distinction rests on the fact of his election as the first president of the Northeastern Medical Society, January 11, 1852, which was to become the Dubuque County Medical Society.

Dr. Asa Horr: In addition to being a skillful physician and surgeon was a man of considerable scientific attainments. He was a member of the American Association for the Advancement of Science and it was through his influence that the Association met in Dubuque in 1872. Dr.

Horr was a noted botanist. He was particularly interested in Meteorology and to him and Professor Lapham is due the present method of forecasting the weather.

Dr. W. F. Peck's most important contribution to the state and to the medical profession was the organization of the medical school of the Iowa State University. Dr. Peck, Mr. John P. Irish and Judge John F. Dillon, through persistent efforts, induced the Board of Regents to take a friendly interest in the medical school and to secure from the legislature authority and money for the new department. Dr. Peck located in Davenport in 1864 and rapidly gained a high place in the profession.

Dr. J. C. Hughes, of Keokuk, became a member of the first faculty of the medical school known as the College of Physicians and Surgeons, Keokuk. This school had been migrating since its first inception at Laporte, Indiana, to Madison, Wisconsin, Rock Island, Illinois, and Davenport, Iowa, and found a resting place for many years at Keokuk in 1850. This school rendered valuable service to the state in its day in sending out young doctors to fill the vacant places. Dr. Hughes published the first medical journal in Iowa—The Western Medico-Chirurgical Journal, later the Iowa Medical Journal.

At the outbreak of the Civil War Governor Kirkwood appointed Dr. Hughes Surgeon General of Iowa. During this trying period he rendered valuable service in organizing troops, in directing the examination of soldiers, and in operating the Government Hospital at Keokuk. Dr. Hughes was Chairman of the United States Sanitary Commission during the Civil War.

(To be continued in April)

NEW AND NON-OFFICIAL REMEDIES

Abbott Laboratories

Butesin Picrate Eye Ointment.

Curdolac Food Co.:

Curdolac Soya Flour.

Curdolac Casein-Bran Improved Flour.

Curdolac Soya-Bran Flour.

Curdolac Breakfast Cereal.

Curdolac Casein Compound.

Curdolac Wheat-Soya Flour.

Curdolac Soya-Cereal Johnny Cake Flour.

Curdolac Soya-Bran Breakfast Food.

Cutter Laboratory:

Ampoule Solution Silver Nitrate, 1 per cent.

Typhoid Paratyphoid Prophylactic hospital size package.

Polyanaerobic Antitoxin.

Scarlet Fever Streptococcus Antitoxin-Cutter.

De Pree Chemical Co.:

Sulpharsphenamine-De Pree, 0.5 Gm. Ampules.

Sulpharsphenamine-De Pree, 0.9 Gm. Ampules.

E. Bilhuber, Inc.:

Lenigallol-Zinc Ointment

H. K. Mulford Co.:

Ampules Sodium Cacodylate-Mulford, $\frac{3}{4}$ grain, 1 cc.

Ampules Sodium Cacodylate-Mulford, 3 grains, 1 cc.

Ampules Sodium Cacodylate-Mulford, 5 grains, 1 cc.

Gelatin Compound Phenolized—Mulford.

Diphtheria Toxoid—Mulford, 30 cc. vial.

Erysipelas Streptococcus Antitoxin, Concentrated, 10 cc. syringe.

Pneumococcus Antibody Solution, Types I, II and III Combined—Mulford, four 50 cc. double-ended vials.

Typho-Bacterin Mixed (Triple Vaccine TAB), thirty 1 cc. vial package.

Typho-Serobacterin—Mulford (Sensitized Typhoid Vaccine), 3 syringe package.

Normal Horse Serum without Preservative.

Lakeside Laboratories, Inc.

Ampoules Dextrose (d-Glucose) 10 Gm., 20 cc.

Ampoule No. 51 Sodium Cacodylate 0.243 Gm. (3 $\frac{3}{4}$ grains), 5 cc.

Mead Johnson & Co.:

Mead's Viosterol in Oil 100 D

Alder Pollen Extract—Mulford; Alfalfa Pollen Extract—Mulford; Annual Sage Pollen Extract—Mulford; Apple Pollen Extract—Mulford; Aster Pollen Extract—Mulford; Blue Beech Pollen Extract—Mulford; Boneset Pollen Extract—Mulford; Brown Grass Pollen Extract—Mulford; Burning Bush Pollen Extract—Mulford; Burweed Marsh Elder Pollen Extract—Mulford; Buttercup Pollen Extract—Mulford; California Mugwort Pollen Extract — Mulford; Careless Weed Pollen Extract—Mulford; Cedar Tree Pollen Extract—Mulford; Clover Pollen Extract—Mulford; Crab Grass Pollen Extract—Mulford; Dahlia Pollen Extract—Mulford; Dragon Sage Pollen Extract—Mulford; Elm Tree Pollen Extract—Mulford; English Plantain Pollen Extract—Mulford; Fescue Pollen Extract—Mulford; Golden Glow Pollen Extract—Mulford; Hickory Tree Pollen Extract—Mulford; Milo Maize Pollen Extract—Mulford; Mock Orange Pollen Extract—Mulford; Oat Pollen Extract—Mulford; Olive Pollen Extract—Mulford; Pecan Tree Pollen Extract—Mulford; Pine Tree Pollen Extract—Mulford; Poverty Weed Pollen Extract—Mulford; Prairie Grass Pollen Extract—Mulford; Privet Pollen Extract—Mulford; Quack Grass Pollen Extract—Mulford; Rabbit Brush Pollen Extract—Mulford; Rose Pollen Extract—Mulford; Salt Bush Pollen Extract—Mulford; Shad Scale Pollen Extract—Mulford; Sheep Sorrel Pollen Extract—Mulford; Slender

Ragweed Pollen Extract—Mulford; Spring Amaranth Pollen Extract—Mulford; Sudan Grass Pollen Extract—Mulford; Velvet Grass Pollen Extract—Mulford; Western Giant Ragweed Pollen Extract—Mulford; Wheat Pollen Extract—Mulford; Wild Oats Pollen Extract—Mulford; Willow Tree Pollen Extract—Mulford; Winter Grass Pollen Extract—Mulford; Yellow Foxtail Grass Pollen Extract—Mulford.

National Drug Co.:

Diphtheria Toxoid.

Thompson's Malted Milk Co., Inc.

Thompson's Maltose and Dextrin.

United States Standard Products Co.

Diphtheria Toxin-Antitoxin Mixture O. 1 L (Non-Sensitizing) Prepared from Sheep Serum.

Winthrop Chemical Co., Inc.:

Tablets Tutocain No. 6.

The following articles have been exempted and included with the List of Exempted Medicinal Articles (New and Nonofficial Remedies, 1929, p. 481):

Robert McNeil:

Tincture Digitalis Duo-Test McNeil.

Black Capsules Digitalis Duo-Test McNeil.

Davies, Rose & Co., Ltd.

Pil. Digitalis (Davies, Rose).

Kings County Packing Co.

Sac-A-Rin Brand California Bartlett Pears.

Sac-A-Rin Brand California Tidbits Hawaiian Pineapple.

Sac-A-Rin Brand California Royal Anne Cherries.

Lakeside Laboratories, Inc.

Ampoule No. 64 Calcium Chloride 10%.

The following article has been exempted and included with the List of Exempted Nonmedicinal Articles (New and Non-official Remedies, 1929, p. 485):

Child Welfare Guild, Inc.:

Bite-X.

IOWANS ATTENDED CONGRESS ON MEDICAL EDUCATION AND LICENSURE

Members of the State Society Committee on Medical Education and Hospitals and the Legislative Committee, as well as, of course, the members of the State Board of Medical Examiners, attended the 1930 Annual Congress on Medical Education, Medical Licensure and Hospitals which was held in Chicago, February 17, 18 and 19. The legislative committee was particularly interested in the various papers and discussions on medical practice acts and basic science laws, while the committee on Medical Education and Hospitals gave special attention to the two sections devoted to those particular topics.

Following the general session on Monday morning and two afternoon sections devoted respectively to Hospital Prescribing and Pathology in Medicine, the

Tuesday morning session presented a topic of immediate interest to Iowa physicians and educators, Medical Teaching Plants, the program being as follows: Medical Teaching Plants, Chas. R. Barden, M.D., Dean University of Wisconsin Medical School, Madison; The Plans of the New York Hospital—Cornell Medical College Association, G. Canby Robinson, M.D., Director, New York City; Special Facilities Required for Teaching in Hospitals Affiliated with Medical Schools, Paul F. Fesler, Superintendent, University Hospital, Minneapolis; Fraudulent Credentials Submitted for Licensure, Charles B. Pinkham, M.D., Secretary California Board of Medical Examiners, Sacramento.

Tuesday afternoon and again Wednesday morning the Federation of State Medical Boards was in session. Aside from certain papers which discussed technical administrative problems, there were three very important contributions to the subject of basic science laws and practice acts. The first of these was by Dr. W. L. Bierring of Des Moines who is the secretary of the federation and the subject was Relation of Basic Science Examinations to Medical Licensure. Fundamentals of a Model Medical Practice Act, by Harold Rypins, secretary of New York Board of Medical Examiners, Legislative Obstacles in Obtaining Adequate Medical Laws, by J. R. Neal, Chairman, Legislative Committee, Illinois Medical Society, were also practical expositions of some of the problems and requirements in this field.

No attempt will be made to summarize these papers at this time because Dr. W. L. Bierring, secretary of the federation, is arranging to have them published in early issues of the Journal of the Iowa State Medical Society.

Other sessions of the congress were devoted to Training of Technicians, Physical Therapy, and Hospital Administration and Staff Organization. The attendance was large and was pronounced as the most successful session of congress held thus far.

PROPOSED AMENDMENT OF THE MEDICAL PRACTICE ACT IN NEW YORK

In a recent dispatch, the Associated Press announced that Senator John A. Hastings of Brooklyn, New York, proposes to introduce into the legislature an amendment to the State Medical Practice Act permitting licensed physicians "the use of spirituous and vinous liquors, as medicines, for the cure and alleviation of illness without limitations as to quantity, or restriction as to time, any state law, local ordinance, or Federal Statute to the contrary notwithstanding." In sponsoring such an amendment, he states that the present Medical Practice Act constitutes "a grave and serious invasion into, and a violation of the sovereign power of the State of New York to regulate the practice of medicine within its territorial confines."

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

TEMPERANCE OR PROHIBITION—The Hearst Temperance Contest Committee, Francis J. Tietsort, Editor—The New York American, Inc.—New York, 1929.

A TEXTBOOK OF PHYSIOLOGY FOR NURSES—By William Gay Christian, M.D., and Charles C. Haskell, B.A., M.D.—Second Edition, The C. V. Mosby Co., 1929—Price, \$2.00.

RESEARCH AND MEDICAL PROGRESS AND OTHER ADDRESSES—By J. Shelton Hensley, M.D.—The C. V. Mosby Co., St. Louis, 1929—Price, \$2.00.

SYMPTOMS OF VISCERAL DISEASE—A study of the Vegetative Nervous System in its Relationship to Clinical Medicine—By Francis Marion Pottenger, A.M., M.D., etc.—Fourth Edition, The C. V. Mosby Co., St. Louis, 1930—Price, \$7.50.

NURSING IN EMERGENCIES—By Jacob K. Berman, A.B., M.D.—The C. V. Mosby Co., 1929—Price, \$2.25.

GETTING WELL AND STAYING WELL—A Book for Tuberculous Patients, Public Health Nurses and Doctors—By John Potts, M.D.—Second Edition, the C. V. Mosby Co., St. Louis, 1930—Price, \$2.00.

PRACTICAL PREVENCEPTION, OR THE TECHNIQUE OF BIRTH CONTROL—For the Medical Profession Only—By William J. Robinson, Ph.D., M.D.—The American Biological Society, Hoboken, N. J.

THE NEWER KNOWLEDGE OF NUTRITION—By E. V. McCollum, Ph.D., Sc.D., and Nina Simmonds, Sc.D.—New Fourth Edition—The Macmillan Co., New York. Price, \$5.00.

TREATMENT IN GENERAL PRACTICE—By Harry Beckman, M.D.—W. B. Saunders Company, 1930, Philadelphia and London. Price, Cloth \$10.00 net.

A TEXT-BOOK ON ORTHOPEDIC SURGERY—By Willis C. Campbell, M.D., F. A. C. S.—W. B. Saunders Company, 1930, Philadelphia and London. Price, Cloth \$8.50.

PEDIATRICS—(The Practical Medicine Series)—Edited by Isaac A. Abt, M.D.—Series 1929, The Year Book Publishers, 304 S. Dearborn St., Chicago. Price \$2.25.

THE BABY'S FIRST TWO YEARS—By Richard M. Smith, A.B., M.D., Sc. D.—New and Revised Edition—Houghton Mifflin Co., Boston and New York. Price, \$1.75.

RADIUM IN GENERAL PRACTICE—By A. James Larkin, B. Sc., M.D., D. N. B.—Illustrated—Paul B. Hoeber, Inc., New York. Price, \$6.00.

SURGICAL DIAGNOSIS—By 42 American Authors—Edited by Evarts A. Graham, M.D.—W. B. Saunders Company, 1930, Philadelphia and London. Price, Cloth, \$35.00 a set.

BOOK REVIEWS

THE MEDICAL CLINICS OF NORTH AMERICA. (Issued serially, one number every other month.) Volume 13, No. 3. (New York Number, November, 1929). Per Clinic year, July, 1929 to May, 1930. Paper, \$12.00; Cloth, \$16.00 net. Philadelphia, W. B. Saunders Company.

This volume of the Medical Clinics from the New York Hospitals, offers a number of very interesting discussions in the field of diagnosis. Outstanding in this volume are the clinics by Dr. I. W. Held and Dr. A. Allen Goldbloom, presenting a summary of our knowledge concerning the functions of the gall bladder, and the clinics of Dr. C. F. Tenney, Dr. Joseph Lintz, Dr. S. D. Jessup, and Dr. Harlow Brooks, reviewing our present knowledge of pernicious anemia. A neurological clinic presented by Dr. Samuel Brock is of interest because of the unusual nature of the cases reported. Bronchial asthma is discussed in clinics by Dr. Horace S. Baldwin and Dr. Maximilian A. Ramirez respectively. The dermatological clinic of Dr. A. Benson Cannon discusses conditions not unusual in any practice. Most of the conditions discussed are illustrated by photographs from life.

THE NUTRITION OF HEALTHY AND SICK INFANTS AND CHILDREN

(For Physicians and Students)—By E. Nobel, Professor of the University and First Assistant, C. Pirquet, Late Professor of the University and Director, and R. Wagner, Associate Professor and Second Assistant, all of the Children's Hospital of the University of Vienna—Authorized Translation by Benjamin M. Gasul, B.S., M.D., Consulting Pediatricist at the Municipal Tuberculosis Sanitarium of Chicago, etc.—Second Revised Edition with 78 Illustrations (Including Charts) and 6 Tables—Philadelphia, F. A. Davis Company, Publishers 1929. Price, \$3.50, net.

"The Nutrition of Healthy and Sick Infants and Children" by Nobel, Pirquet, and Wagner as translated from the German by Benjamin Gasul is a book of some 200 pages, well bound and printed in easily readable type.

The Nem system of nutrition as devised by Professor Pirquet is concisely and clearly given at the outset, and in subsequent pages its practical application to the feeding of sick and well infants and

children is described by text and by illustrative cases. Were the Nem system of nutrition the only feature, the book would be of limited practical value to American physicians for this system is little used in this country, but the majority of the chapters are devoted to discussions of the management of the sick infant and child. The material for these discussions has been drawn from the experiences of the authors in their work at the University Children's Hospital of Vienna.

The problems attending the nutrition of the sick and well infant are clearly analyzed, and many helpful suggestions given. To pediatricians the book should be of value as a ready reference to the Pirquet System of Nutrition, and to general practitioners for the excellent description and classification of nutritional disturbances of infants and children.

L. F. H.

THE MEDICAL MUSEUM

Modern Developments, Organization, and Technical Methods Based on a New System of Visual Teaching—By S. H. Daukes, O.B.E., M.D., D.P.H., D.T.M., & H. Director of The Wellcome Museum of Medical Science Affiliated to The Bureau of Scientific Research—An Amplification of a Thesis Read for the Degree of M. D. Cambridge—The Wellcome Foundation Ltd., Ensleigh Court, 33, Gordon Street, London, W. C. 1.

This volume describes the organization, function, and arrangement of the Wellcome Museum of Medical Science affiliated with the Bureau of Scientific Research in London. The author has discussed the details of a new system of visual teaching of medicine in connection with medical museums. The volume is profusely illustrated, and will be of benefit and interest both to those engaged in the teaching of the so-called fundamental sciences in medicine and also those engaged in museum work.

STERILIZATION FOR HUMAN BETTERMENT

By E. S. Gosney, B.S., L.L.B., and Paul Popenoe, D. Sc. Price, \$2.00—The Macmillan Company, Publishers, New York.

Some twenty years ago, laws were enacted in California permitting the sterilization of feeble-minded and insane persons and habitual criminals without consent of either the individuals concerned or their relatives. Since the enactment of this law, over six thousand individuals have been rendered sterile by surgical procedures. The results obtained from this twenty years' experience are briefly, but pointedly, reviewed in this volume.

In the series of cases reported, there were three deaths, one from anesthetic and two from infection. So far as is known, there are but seven cases in which the sterilization procedure was ineffectual. The individuals subjected to the operation do not

lose their sex feeling, desire, or performance. Their general health is not affected, since no organ or gland of the body is destroyed. The author has carefully balanced against the slight inconvenience of this operation the tremendous economic gain in preventing reproduction in this undesirable class.

The volume will prove of great value to the social worker, the economist, and the eugenicist. Any physician desiring detailed information as to the working of such laws will find this volume of inestimable value.

O. J. F.

ESSENTIALS OF MEDICAL ELECTRICITY

By Elkin P. Cumberbatch, M.A., B.M., (Oxon.), D.M.R.E. (Camb.), M.R.C.P., Medical Officer in Charge, Electrical Department, St. Bartholomew's Hospital, etc.—Sixth Edition, Revised and Enlarged—With Eleven Plates and 116 Illustrations—St. Louis, The C. V. Mosby Company, 1929. Price, \$4.25.

This sixth edition brings up-to-date a text which has been accepted as standard on the subject of medical electricity since 1905. The author discusses all electrical currents and the apparatus ordinarily employed in medical treatment. He assumes only an elementary knowledge of physics in his discussion, and for this reason, has written a manual which will be useful both to the lay technician and the physician alike. Detailed information may be obtained on the galvanic current, electro-chemical cauterisation, iontophoresis, the sinusoidal current, high frequency current, and diathermy. The volume is well illustrated.

GENERAL SURGERY

Edited by Evarts A. Graham, A.B., M.D., Professor of Surgery, Washington University School of Medicine; Surgeon-in-Chief of the Barnes Hospital and of the Children's Hospital, St. Louis—Series, 1929, The Practical Medicine Series—Chicago, The Year Book Publishers, 304 South Dearborn Street. Price, \$3.00.

This volume, under the able editorship of Evarts A. Graham summarizes the outstanding contributions in the surgical field during the past year. Most noteworthy, perhaps, are the reports on the use of the electrosurgical unit of Bovie in the removal of brain tumors; the recent work on hyperparathyroidism and adenoma of a parathyroid gland; the treatment of breast carcinoma by radium as practiced in St. Bartholomew's Hospital, London; the use of Birkhaug's serum in the treatment of erysipelas; and the use of gastrectomy instead of gastrojejunostomy in cases of gastric or duodenal ulcer.

The volume is written in paragraphic style with a very complete cross-indexed index which makes the material readily accessible. The volume is well illustrated.

THE MEDICAL CLINICS OF NORTH AMERICA

(Issued Serially, One Number Every Other Month)—Volume 13, No. 4—(Philadelphia Number, January 1930)—Octavo of 301 Pages, Illustrated—Per Clinic Year, July, 1929 to May, 1930—Paper, \$12.00; Cloth, \$16.00 net—Philadelphia and London, W. B. Saunders Company.

The January number of the Medical Clinics will be found of unusual interest to the general practitioner, since ten or twelve of the papers presented are in no sense technical, and discuss conditions commonly met. Typical of these discussions are those by Drs. Small and Stroud, discussing, respectively, "Streptococci in Relation to Rheumatic Disease," and "The Treatment of Rheumatic Cardiovascular Disease in Children." Cardiovascular-renal disease, discussed from a diagnostic standpoint by Dr. Edward Weiss, angina pectoris by Drs. Charles Wolferth and Francis Wood, and chronic non-tuberculous pulmonary disease by Dr. Robert G. Torrey, are quite complete and thoroughly instructive. The differential diagnosis of endocarditis is discussed by Dr. Jefferson Clark, while Dr. Harry Wilmer presents some interesting personal observations in atypical types of hay-fever.

This number is outstanding also in the fact that there are reports from twenty-nine separate clinics presented.

THE VOLUME OF THE BLOOD AND PLASMA IN HEALTH AND DISEASE

By Leonard G. Rowntree, M.D., and George E. Brown, M.D., Division of Medicine, The Mayo Clinic and The Mayo Foundation, Rochester, Minnesota, with the Technical Assistance of Grace M. Roth—12mo 219 pages, illustrated—Philadelphia and London, W. B. Saunders Company, 1929. Price, Cloth, \$3.00 net.

This monograph is of unusual value to the medical profession, since the work reported is essentially new, and constitutes a research into a phase of medicine which has heretofore not received consideration. The authors have not concerned themselves with the cellular elements of the blood, but have reported solely upon the blood and plasma volume as determined by a dye method originated by one of the authors. The report is not intended to be in any sense final on the subject, but rather presents the objects, technique employed, and suggested interpretation at the present time. They have had opportunity of making some one thousand determinations in three hundred and fifty clinical cases, and in the closing chapter of the volume, analyze in considerable detail their findings in various abnormal conditions.

Every student of medicine should be interested in

research of this character, since it must be appreciated that the abstract science of today forms the basis for the applied science of tomorrow.

PRACTICAL PSYCHOLOGY AND PSYCHIATRY

For Use in Training-Schools for Attendants and Nurses and in Medical Classes, and as a Ready Reference for the Practitioner By C. B. Burr, M.D., Late Medical Director Oak Grove Hospital (Flint, Mich.), for Mental and Nervous Diseases, etc.—Sixth Edition, Revised and Enlarged, with Illustrations—Philadelphia, F. A. Davis Company, Publishers, 1930.

This volume is designed as a text and reference volume for nurses, but may well be used as a compend for medical students and practitioners. The author has stressed the psychological principles involved in the interpretation of abnormal mental states, and has furnished in narrative form a description of each disease syndrome. He has discussed both the nursing and medical management of these conditions, and in his closing section has outlined the mental hygiene of benefit in the prevention of insanity. The volume is well written.

PROPOSED LEGISLATION IN NEW YORK STATE

As reported by the Pennsylvania Medical Journal, the Medical Society of the State of New York is again very active with a session of their State Legislature. No one knows just what this means excepting those who are intimately associated with this kind of activity. A number of bills that were considered last year and defeated have already found their way into the Legislature this year. Of general medical interest may be mentioned the following: Making all disabling diseases and illnesses compensable under the Workmen's Compensation Law; amending the Workmen's Compensation Law by providing compensation for all diseases arising out of employment — this is a very far-reaching bill, because it would make every employer, under whom the workman might have been employed, liable for a share in the compensation allowed the employee, if he dies or becomes permanently disabled because of a disease arising out of the employment, unless the earlier employers can prove that the employee was well when he left them; a health insurance bill very much enlarged over last year, and adding to it sections on old-age pension and maternity benefits; a chiropractic bill; an amendment to the new public welfare law, providing that a patient whose care is to be charged on a public welfare district shall be cared for in a hospital located in the city, town, or village where patient resides; reintroduction of bill for sexual sterilization of the insane.

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John Hyren Peck, M. D.

President
Iowa State Medical Society
1929 - 1930

The JOURNAL

of the

Iowa State Medical Society

VOL. XX

DES MOINES, IOWA, APRIL, 1930

No. 4

IOWA STATE MEDICAL SOCIETY

Organized 1850

Seventy-Ninth Annual Session

Marshalltown, May 14, 15, 16-1930

Do not fail to Register. Registration Bureau---Memorial Coliseum



PROGRAM

OPENING EXERCISES

Wednesday, May 14
8:15 a. m.

Call to Order by the President—

JOHN H. PECK, M.D., Des Moines

Invocation—

REV. WILLIS K. WILLIAMS, D.D., Marshalltown
Pastor, First Congregational Church

Address of Welcome for the City—

AARON C. CONAWAY, M.D., Marshalltown
Mayor, City of Marshalltown

Address of Welcome for the Profession—

ARTHUR D. WOODS, M. D., State Center
President, Marshall County Medical Society

SCIENTIFIC PROGRAM

Wednesday, May 14
8:30 a. m.

1. Medical Clinic—

O. H. PERRY PEPPER, M.D., Philadelphia, 8:30-9:15

2. Surgical Clinic—

TEMPLE FAY, M.D., Philadelphia, 9:15-10:00

3. Management of Duodenal Ulcer—

NICHOLAS SCHILLING, M.D., New Hampton, *twenty minutes*
Discussion opened by FRANK O. KERSHNER, M.D., Clinton,
five minutes

4. Indications for Treatment in Abortions—

HENRY C. HESSELTINE, M.D., Iowa City, *twenty minutes*
Discussion opened by BEN G. BUDGE, M.D., Ames, *five minutes*

5. Acrodynia—

A. FRED WATTS, M.D., Creston, *twenty minutes*
Discussion opened by ROLAND W. STAHR, M.D., Fort Dodge,
five minutes

6. The Neglected Neuropath—

LEE R. WOODWARD, M.D., Mason City, Chairman of the
Medical Section, *twenty minutes*

Wednesday, May 14
1:30 p. m.

7. Address in Medicine—The Internist's Responsibility for the Fruitless Laparotomy—

O. H. PERRY PEPPER, M.D., Professor of Clinical Medicine,
University of Pennsylvania School of Medicine, Philadelphia

Symposium on Fractures

8. Fractures of the Foot and Ankle—

CLARENCE O. EPLEY, M.D., Spirit Lake

9. Fractures of the Knee—

W. EUGENE WOLCOTT, M.D., Des Moines

10. Fractures of the Hip—

FRED L. KNOWLES, M.D., Fort Dodge

11. Fractures of the Hand and Wrist—

JOHN A. CAHILL, M.D., Volga

12. Fractures of the Elbow—

PETER A. BENDIXEN, M.D., Davenport

13. Fractures of the Shoulder—

CHARLES A. KATHERMAN, M.D., Sioux City

14. General Resume of Symposium—

CLARENCE W. HOPKINS, M.D., Chief Surgeon, Chicago and
Northwestern Railroad, Chicago

Wednesday Evening, May 14

7:30 p. m.

Elks Club

15. Address: Thyroid Dyscrasies in Relation to Eye Diseases—

GEORGE FRANCIS SUKER, M.D., Guest of Section on Ophthalmology, Otolology and Rhinolaryngology, Chicago

16. Address: What Is the Matter with the Medical Profession?—

HERMAN M. JOHNSON, M.D., Past President, Minnesota State Medical Society, Dawson

Discussion opened by:

CHARLES B. WRIGHT, M.D., Minneapolis

SAMUEL H. BOYER, M.D., Duluth

EDWARD A. MEYERDING, M.D., St. Paul

Smoker following the Scientific Program.

Thursday, May 15

8:30 a. m.

17. Surgical Clinic—

TEMPLE FAY, M.D., Philadelphia, 8:30-9:15

18. Medical Clinic—

O. H. PERRY PEPPER, M.D., Philadelphia, 9:15-10:00

19. The Obstructing Prostate—

WILLIAM R. HORNADAY, M.D., Des Moines, *twenty minutes*
Discussion opened by RALPH E. KEYSER, M.D., Marshalltown, *five minutes*

20. Prolonged Bed Rest in Tuberculosis—

CHARLES F. TAYLOR, M.D., Oakdale, *twenty minutes*
Discussion opened by EDWARD T. EDGERLY, M.D., Ottumwa, *five minutes*

21. The Role of Surgery in the Treatment of Pulmonary Tuberculosis—

J. DEWEY BISGARD, M.D., Harlan, *twenty minutes*
Discussion opened by FRANK W. FORDYCE, M.D., Des Moines, *five minutes*

22. The Converging Trend of Medicine and Surgery—

EDWARD M. MYERS, M.D., Boone, Chairman of the Surgical Section, *twenty minutes*

Thursday, May 15

1:30 p. m.

23. Address in Surgery: Acute Cerebral Hydration States; Their Management by Dehydration, With Especial Reference to Epilepsy and Cerebral Trauma—

TEMPLE FAY, M.D., Professor of Neurosurgery, Temple University School of Medicine, Philadelphia

24. Hereditary Hypertension—

DANIEL J. GLOMSET, M. D., Des Moines, *twenty minutes*
Discussion opened by ORRY C. MORRISON, M.D., Carroll, *five minutes*

25. Coronary Diseases—

HERBERT W. RATHE, M.D., Waverly, *twenty minutes*
Discussion opened by JOHN I. MARKER, M.D., Davenport, *five minutes*

26. Cardiac Therapy—

FRED M. SMITH, M.D., Iowa City, *twenty minutes*
Discussion opened by WALTER L. BIERRING, M.D., Des Moines, *five minutes*

27. The Cancer Problem—

ALBERT V. HENNESSY, M.D., Council Bluffs, *twenty minutes*
Discussion opened by WILLIAM JEPSON, M.D., Sioux City, *five minutes*

28. Radiation in Pelvic Disease—

JOHN F. HERRICK, M.D., Ottumwa, *twenty minutes*
Discussion opened by ARTHUR W. ERSKINE, M.D., Cedar Rapids, *five minutes*

Thursday Evening, May 15

Social and Scientific Entertainment

Banquet—Coliseum

6:30 p. m.

President's Address—

JOHN HYREN PECK, M.D., Des Moines

Address by the President-Elect—

WILLIAM AMOS ROHLF, M.D., Waverly

Address by the President-Elect of the American Medical Association—

WILLIAM GERRY MORGAN, M.D., Washington, D. C.

Friday, May 16

8:30 a. m.

29. Pediatrics Clinic—

ROBERT H. MCBRIDE, M.D., Sioux City, 8:30-9:15

30. Surgical Clinic—

CHARLES J. ROWAN, M.D., Iowa City, 9:15-10:00

31. Methods in Diagnosis—

ELI GRINES, M.D., Des Moines, *twenty minutes*
Discussion opened by GEORGE B. CROW, M.D., Burlington, *five minutes*

32. Intestinal Obstruction—

DONALD C. CONZETT, M.D., Dubuque, *twenty minutes*
Discussion opened by ROBERT H. CRAWFORD, M.D., Algona, *five minutes*

33. Address—Functional Diseases of the Alimentary Tract—

WILLIAM GERRY MORGAN, M.D., President-Elect, American Medical Association, Washington, D. C.

OPHTHALMOLOGY, OTOTOLOGY AND RHINOLARYNGOLOGY

Wednesday, May 14

1:30 p. m.

School of Instruction, Dry Clinics and Demonstrations—

1. ROYAL F. FRENCH, M.D., and EDWIN COBB, M.D., Marshalltown

2. GEORGE F. SUKER, M.D., Chicago

3. DEAN M. LIERLE, M.D., Iowa City

Thursday, May 15

9:30 a. m.

1. Chairman's Address—

FRED W. BAILEY, M.D., Cedar Rapids

2. Headache Problems in Diagnosis—

ORAL L. THORBURN, M.D., Ames
Discussion opened by Harold J. McCoy, M.D., Des Moines, and Harry M. Ivins, M.D., Cedar Rapids.

3. Chronic Mastoiditis—

GEORGE C. ALBRIGHT, M.D., Iowa City
Discussion opened by Sydney D. Maiden, M.D., Council Bluffs, and George J. Pearson, M.D., Burlington.

4. The Anesthetic in Tonsil and Adenoid Operations—

JOHN E. STANSBURY, M.D., Cedar Rapids
Discussion opened by Frank L. Secoy, M.D., Sioux City, and Ira N. Crow, M.D., Fairfield.

5. Suppurative Choroiditis of Endogenous Origin—

CHARLES F. HOWLAND, M.D., Des Moines
Discussion opened by Julius S. Weingart, M.D., Des Moines, and Jesse B. Naftzger, M.D., Sioux City.

Our Distinguished Guests



TEMPLE FAY, M. D.
Philadelphia



WILLIAM GERRY MORGAN, M. D.
Washington, D. C.



GEORGE F. SUKER, M. D.
Chicago



O. H. PERRY PEPPER, M. D.
Philadelphia

6. Bronchoscopy and Esophagoscopy in Relation to Foreign Bodies and Diseases of the Chest—
THOMAS R. GITTINS, M.D., Sioux City
Discussion opened by Gordon F. Harkness, M.D., Davenport, and Wayne J. Foster, M.D., Cedar Rapids.
7. Axial Myopia; Phases of Etiology and Treatment—
FRANK W. DEAN, M.D., Council Bluffs
Discussion opened by Royal F. French, M.D., Marshalltown, and Jay C. Decker, M.D., Sioux City.
8. Aids in Diagnosis From the Ophthalmologist's Viewpoint—
CHARLES C. WALKER, M.D., Des Moines
Discussion opened by John H. Tait, M.D., Des Moines, and H. Irl McPherrin, M.D., Des Moines.
9. Agranulocytic Angina—
FRANK H. REULING, M.D., Waterloo
Discussion opened by Edwin Cobb, M.D., Marshalltown, and Albert J. Joynt, M.D., Waterloo.
10. Quinsy—
HARRY H. LAMB, M.D., Davenport
Discussion opened by Charles B. Taylor, M.D., Ottumwa, and Cecil C. Jones, M.D., Des Moines.
11. Complications of Quinsy—
WAYNE J. FOSTER, M.D., Cedar Rapids
Discussion opened by Sumner B. Chase, M.D., Ft. Dodge, and Lloyd G. Howard, M.D., Council Bluffs.

ENTERTAINMENT

Wednesday, May 14

1:00 p. m.

Reception, Luncheon and Musical at Willards, 609 W. Main St., for visiting ladies by wives of members of Marshall County Medical Society.

Ladies meet at Hotel Stoddart for transportation.

7:30 p. m.

Men's Smoker following Scientific Program at Elks Club.

8 p. m.

Theatre Party for Ladies.

Thursday, May 15

1 p. m.

Auxiliary Luncheon, Colonial Room, Hotel Tallcorn. All visiting ladies invited.

3:00 p. m.

Ladies meet at Hotel Stoddart for an auto tour of the city.

Bridge Tea at Willards, 609 W. Main St.

6:30 p. m.

Annual Banquet at Memorial Coliseum, physicians, their wives and guests.

Secure tickets early.

HOUSE OF DELEGATES

Colonial Room—Hotel Tallcorn

Tuesday, May 13

2:00 p. m.

Roll Call

Approval of Minutes of Friday Morning Session, 1929.

Report of Secretary
Report of Treasurer
Report of Council
Report of Trustees
Report of Delegates to A. M. A.
Report of Standing Committees:

Medico-Legal—

FRANK A. ELY, Des Moines, Chairman

Scientific Work—

JOHN H. PECK, Des Moines, Chairman

Public Policy and Legislation—

THOMAS A. BURCHAM, Des Moines, Chairman

Constitution and By-Laws—

VERNON L. TREYNOR, Council Bluffs, Chairman

Publication Committee—

RALPH R. SIMMONS, Des Moines, Editor

Finance—

ERNEST C. MCCLURE, Bussey, Chairman

Arrangements—

AARON C. CONAWAY, Marshalltown, Chairman

Report of Special Committees:

Medical Library—

*DAVID S. FAIRCHILD, SR., Clinton, Chairman

Military Affairs—

DONALD MACRAE, JR., Council Bluffs, Chairman

Medical Economics—

THOMAS U. McMANUS, Waterloo, Chairman

Medical Education and Hospitals—

BERT L. EIKER, Leon, Chairman

Historical—

*DAVID S. FAIRCHILD, SR., Clinton, Chairman

WALTER L. BIERRING, Des Moines, Secretary

Memorials and Communications

New Business

Election of Committee on Nominations

*Deceased

Friday, May 16

1:30 p. m.

Roll Call

Reading of Minutes

Report of Committee on Nominations

Election of Officers

Report of Committees

Unfinished Business

New Business

Adjournment

MEETING PLACES

Headquarters—Hotel Tallcorn.

General Meetings—Memorial Coliseum and Elks Club.

House of Delegates—Hotel Tallcorn, Colonial Room.

Eye, Ear, Nose and Throat Section—Hotel Tallcorn, Colonial Room.

Registration and Exhibits—Coliseum.

Headquarters for Ladies—Stoddart Hotel.

Section Chairmen and Reporters

Section on Medicine—

Chairman, LEE R. WOODWARD, M.D., Mason City

Section on Surgery—

Chairman, EDWARD M. MYERS, M.D., Boone

Section on Ophthalmology, Otology and Rhinology—

Chairman, FRED W. BAILEY, M.D., Cedar Rapids

Reporter, House of Delegates—

MISS MARIE CRANK, Des Moines

HEADQUARTERS



HOTEL TALLCORN

OUR GUESTS

- WILLIAM GERRY MORGAN, M.D., Washington, D. C.
- O. H. PERRY PEPPER, M.D., Philadelphia.
- TEMPLE FAY, M.D., Philadelphia.
- GEORGE FRANCIS SUKER, M.D., Chicago.
- HERMAN M. JOHNSON, M.D., Dawson, Minnesota.

Rules for Papers and Discussions

“No address or paper before the Society, except those of the President and the Guests, shall occupy more than twenty minutes in its delivery; and no member shall speak longer than five minutes nor more than once on any subject.” “All papers read before the Society shall be the property of the Society.” (Excerpts from By-laws.)

Each paper should be typewritten, and deposited with the Secretary when read; if this is not done, it will not be published.

On rising to discuss a paper, the speaker will please come forward and announce his name and address plainly.

Registration

- Do not fail to Register.
- Please bring your membership card for presentation at Registration Desk.

IOWA STATE MEDICAL SOCIETY OFFICERS
AND COMMITTEES 1929-1930

- President.....John H. Peck, Des Moines
- President-elect.....William A. Rohlf, Waverly
- First Vice-President.....Gordon F. Harkness, Davenport
- Second Vice-President.....William W. Bowen, Fort Dodge
- Secretary.....Tom B. Throckmorton, Des Moines
- Treasurer.....Robert L. Parker, Des Moines

COUNCILORS Term expires

- First District—George B. Crow, Burlington.....1930
- Second District—Anthony P. Donohoe, Davenport.....1932
- Third District—Fred F. Agnew, Independence.....1931
- Fourth District—Paul E. Gardner, New Hampton.....1934
- Fifth District—Aaron C. Conaway, Marshalltown.....1933
- Sixth District—Samuel T. Gray, Albia.....1933
- Seventh District—Channing G. Smith, Granger.....1934
- Eighth District—James G. Macrae, Creston.....1934
- Ninth District—*Henry B. Jennings, Council Bluffs.....1932
- Tenth District—Watson W. Beam, Rolfe.....1931
- Eleventh District—Giles C. Moorhead, Ida Grove.....1930

TRUSTEES

- Oliver J. Fay, Des Moines, Chairman.....1931
- Vernon L. Treynor, Council Bluffs.....1930
- John F. Herrick, Ottumwa.....1932

DELEGATES TO A. M. A.

- Thomas F. Thornton, Waterloo.....1931
- Donald Macrae, Jr., Council Bluffs.....1930
- William R. Jepson, Sioux City.....1930

ALTERNATE DELEGATES TO A. M. A.

- Clyde A. Boice, Washington.....1931
- Thomas A. Burcham, Des Moines.....1930
- John F. Herrick, Ottumwa.....1930

STANDING COMMITTEES

MEDICO-LEGAL

Frank A. Ely, Des Moines, Chairman.....1932
 George C. Albright, Iowa City.....1930
 *Henry B. Jennings, Council Bluffs.....1931

SCIENTIFIC WORK

John H. Peck.....Des Moines
 Tom B. Throckmorton.....Des Moines
 Robert L. Parker.....Des Moines

PUBLIC POLICY AND LEGISLATION

Thomas A. Burcham, Chairman.....Des Moines
 W. Eugene Wolcott.....Des Moines
 Peter A. Bendixen.....Davenport
 John H. Peck, Ex-Officio.....Des Moines
 Tom B. Throckmorton, Ex-Officio.....Des Moines

CONSTITUTION AND BY-LAWS

Vernon L. Treynor.....Council Bluffs
 Charles B. Taylor.....Ottumwa
 Tom B. Throckmorton.....Des Moines

PUBLICATION COMMITTEE

*David S. Fairchild, Editor Emeritus.....Clinton
 Ralph R. Simmons, Editor.....Des Moines
 Tom B. Throckmorton, Secretary.....Des Moines
 Oliver J. Fay, Trustee.....Des Moines
 Vernon L. Treynor, Trustee.....Council Bluffs
 John F. Herrick, Trustee.....Ottumwa

FINANCE

Ernest C. McClure, Chairman.....Bussey
 Hatford F. Childs.....Audubon
 Elmer P. Weih.....Clinton

ARRANGEMENTS

John H. Peck.....Des Moines
 Tom B. Throckmorton.....Des Moines
 Robert L. Parker.....Des Moines
 Aaron C. Conaway.....Marshalltown
 Raymond S. Grossman.....Marshalltown

SPECIAL COMMITTEES

MEDICAL LIBRARY

*David S. Fairchild, Sr., Chairman.....Clinton
 Conrad R. Harken.....Osceola
 Felix A. Hennessy.....Calmar

MILITARY AFFAIRS

Donald Macrae, Jr., Chairman.....Council Bluffs
 Harold A. Spilman.....Ottumwa
 Earl B. Bush.....Ames

MEDICAL ECONOMICS

Thomas U. McManus, Chairman.....Waterloo
 Hatford F. Childs.....Audubon
 Corwin S. Cornell.....Knoxville
 James C. Donahue.....Centerville
 Isaac E. Nervig.....Sioux City

MEDICAL EDUCATION AND HOSPITALS

Bert L. Eiker, Chairman.....Leon
 Arthur W. Erskine.....Cedar Rapids
 Albert V. W. Hennessy.....Council Bluffs

HISTORICAL COMMITTEE

*David S. Fairchild, Chairman.....Clinton
 Walter L. Biering, Secretary.....Des Moines
 Frank M. Fuller.....Keokuk
 William R. Jepson.....Sioux City
 Arthur D. Woods.....State Center

Vernon D. Blank, Managing Director,
 1122 Bankers Trust Bldg., Des Moines

*Deceased.

Meetings of Woman's Auxiliary Iowa State Medical Society

Thursday, May 15

10:00 a. m.

General meeting of the Iowa State Woman's Auxiliary in the Colonial Room, Hotel Tallcorn. All visiting ladies invited.

1:00 p. m.

Woman's Auxiliary luncheon in the Colonial Room, Hotel Tallcorn. All visiting ladies invited.

Friday, May 16

10:00 a. m.

Last general meeting of the Iowa State Woman's Auxiliary in the Colonial Room, Hotel Tallcorn. All visiting ladies invited.

State Society Of Iowa Medical Women Thirty-Third Annual Meeting Marshalltown

Tuesday, May 13, 1930.

Headquarters—Hotel Pilgrim

Meeting Place—Y. W. C. A.

Morning Session

10 a. m.

Registration—

Greeting—

CORA WILLIAMS CHOATE, M.D., Marshalltown

Appointment of Committees—

President's Address—"Birth Injuries."

"Symptoms of Thymus Disease"—

NELLE NOBLE, M.D., Des Moines

Luncheon, Y. W. C. A., 12:00

Informal Discussion

Afternoon Session

2 p. m.

"Allergy: Hay Fever and Eczema"—

ZELLA WHITE STEWART, M.D., Iowa City

(Illustrated.)

"Medical Women of Today"—

OLGA STASTNY, M.D., Omaha

President-Elect National Women's Medical

"Problems in Student Health"—

GRACE E. WILLIAMS, M.D., Iowa City

(Five minutes will be allowed for the discussion of each paper)

Annual Business Meeting and Election of Officers

4:15 p. m.

Dinner—Willard Home

7:00 p. m.

Informal Social Gathering—Music

Officers

President.....CHRISTINE ERICKSEN-HILL, M.D., Council Bluffs
 Vice-President.....EMMA ACKERMAN, M.D., Sioux City
 Secretary.....JULIA FORD HILL, M.D., Des Moines
 Treasurer.....FLORENCE JOHNSTON, M.D., Cedar Rapids

Chairmen of Committees

Credentials.....HELEN JOHNSTON, M.D., Des Moines
 Ethics.....JANE MCINTOSH WRIGHT, Clear Lake
 Publications.....JEANNETTE DEAN-THROCKMORTON, Des Moines
 Federation.....NELLE NOBLE, M.D., Des Moines
 Arrangements.....CORA WILLIAMS CHOATE, M.D., Marshalltown
 Districts.....EPPIE MCCREA, M.D., Eddyville

Important Notice

Those desiring hotel reservations must write *at once* to the HOTEL PILGRIM as accommodations are *limited*.

Marshalltown Prepared for Large Attendance

The central location of Marshalltown with its excellent automobile roads and railroad facilities, is expected to attract an unusual number of member physicians to the seventy-ninth annual session of the Iowa State Medical Society. The Marshall County Medical Society, its Woman's Auxiliary, and the city of Marshalltown are all making thorough preparations to give a cordial welcome and a profitable good time to all who come.

Entertainment for both the members and the visiting ladies has been carefully planned and, in addition to the Wednesday night smoker and the usual entertainment for the women, is to include some special features supplied by the Marshall County Society. Hotel and room accommodations are promised for all, and a joint bureau of the local medical society and the Chamber of Commerce will be ready to assist visiting members. The following announcement is made:

HOTEL ACCOMMODATIONS AT MARSHALLTOWN

HOTEL TALLCORN

37 Rooms Single \$3.00 Double \$5.00
(Double Bed, with bath)

10 Rooms Single 3.00 Double 5.50
(Twin Beds, with bath)

29 Rooms Single 2.50 Double 4.00
(Double Bed, shower)

8 Rooms Single 3.50 Double 6.00
(Corner rooms) (Twin Beds, with bath)

HOTEL EVANS

35 Rooms Single \$1.50 Double \$2.50 (Without bath)
8 Rooms Single 2.00 Double 3.50 (with bath)

PILGRIM HOTEL

64 Rooms Single \$1.50 Double \$2.50 (Without bath)
20 Rooms Single 2.00 Double 3.50 (With bath)

STODDART HOTEL

5 Rooms Single \$1.00 Double \$2.00 (Without bath)
35 Rooms Single 1.50 Double 3.00 (Without bath)
15 Rooms Single 2.00 Double 4.00 (With bath)

All hotels are modern and equipped to give you excellent service. The above hotels are in the center of the business district. Make reservations direct to the hotels. You may be assured of real hospitality at Marshalltown.

The interesting facts about our host city are set forth in the following statement:

"Marshalltown is a city of 23,000 people, located near the exact center of the great state of Iowa.



IOWA STATE SOLDIERS HOME

More than fifty industries are located in this city, some being the largest of their kind in the world. In addition, we have the Iowa State Soldiers Home and several important places of interest.

"We have a new \$125,000 Memorial Coliseum, which has a wonderful convention hall with executive offices adjoining and with complete dining room facilities; also four hotels, one of which is the new half million dollar Hotel Tallcorn. Rates on rooms are \$1.00 to \$3.00 and all hotels have a fine spirit of hospitality.

"Marshalltown is served by three trunk railroads, touching nearly every point in the state. They are



DEACONESS HOSPITAL

the Chicago Great Western; Chicago North Western, and Minneapolis and St. Louis.

"The Lincoln Highway, now Federal Highway No.



ST. THOMAS HOSPITAL

30, passes east and west through the city and Primary Highway No. 14 north and south.

"Two excellent hospitals serve the community's needs, in addition to the hospital of the Iowa State Soldiers Home. A combined Y. M. and Y. W. C. A. supplement the physical and mental training given by the schools and churches and an excellent Public Library is at the disposal

of the residents. Marshalltown is noted for its beautiful churches and a school construction program covering a period of twenty-five years is being carried out, a new Junior and Senior School having just been completed.

"With the central location of Marshalltown, excellent paved and graveled highways leading into this city and with the fine railroad facilities, which the city has to offer, it would seem that the attendance at the State Medical Society meeting would be large. During the last few years, Marshalltown has made an enviable reputation as a hospital-ity convention center."



MEMORIAL COLISEUM

MEDICAL BILLS IN CONGRESS

H. J. Res. 260, introduced by Representative Sirovich, New York, proposes to request the President to call a conference of the civilized nations of the world in Washington, in 1931, to solve the problem of narcotic addiction. H. R. 9932, introduced by Representative Knutson, Minnesota, proposes to authorize the President to commission as a major general in the medical department of the army a colonel of the medical corps of the Army "Who has achieved distinction among the medical profession as a general surgeon and since the World War has contributed greatly to the development of surgery of the chest" and who has received the distinguished service medal. H. R. 10375, introduced by Representative Woodruff, Michigan, proposes to provide for the retirement of disabled nurses in the Navy. H. R. 10378, introduced by Representative Chindblom, Illinois, proposes to authorize an appropriation of \$1,720,000 to erect an addition to veterans' hospital 105, at North Chicago, Illinois. H. R. 10381, introduced by Representative Johnson, South Dakota, proposes to amend the World War Veterans' Act to

provide that, if an ex-service man had, prior to Jan. 1, 1925, a disability developing to a degree of 10 per cent or more, he shall be presumed to have acquired it in service. H. R. 10419, introduced by Representative Rogers, Massachusetts, proposes to authorize an appropriation of \$87,500 to erect an addition to the veterans' hospital at Bedford, Massachusetts. H. R. 10449, introduced by Representative Arentz, Nevada, proposes to authorize an appropriation of \$500,000 to erect a veterans' hospital in Nevada. H. R. 10452, introduced by Representative Sirovich, New York, and H. R. 10561 introduced by Representative Porter, Pennsylvania, proposes to create in the Treasury Department a bureau of narcotics. H. R. 10463, introduced by Representative Goldsborough, Maryland, proposes to authorize an appropriation of \$3,000,000 to erect an addition to the veterans' hospital at Perry Point, Maryland. H. R. 10574 introduced by Representative Goodwin, Minnesota, proposes to extend for a seven year period, from July 1, 1930, to June 30, 1937, the act of Nov. 23, 1921, entitled "An Act for the promotion of the welfare and hygiene of maternity and infancy and for other purposes."

THE NEW STATE MATERNITY WELFARE PROGRAM*

E. D. PLASS, M.D., Iowa City

A generation since, the medical profession was considerably disturbed at the apparent apathy of the public to things medical, for it was believed, quite rightly, that further progress along certain lines could be expected only after public interest had been aroused. Preventive medicine demands public sympathy and an enlightened laity, since obviously it would be impossible to control preventable diseases unless those likely to be stricken want to escape their ravages. The campaign then inaugurated to enlist public interest has succeeded far beyond the dreams of anyone concerned with its birth, to the point where it may be said fairly that the American public is health-conscious, or perhaps one should say, disease-conscious.

The credit, or blame, for this state of affairs may fairly be placed upon the medical men, who started the movement but could not foresee its tremendous growth and significant possibilities. In the early days of the movement, the originators were gratified at the generous response and seemed equal to the task of directing the progress of events without too great sacrifice; but later, when the characteristic American bent for strenuousness manifested itself, its momentum became too great and its speed too rapid. Consequently, with the profession unable to set the desired pace, the people have gone ahead on their own initiative, and we are now faced with the fact that too many health projects are being sponsored by lay organizations which have no medical support. Experience, however, seems to indicate that these latter are not accomplishing as much as might be desired, so that the need for medical leadership is becoming more generally apparent.

There can be no reasonable doubt that health movements, which revolve largely around preventive medicine, should be directed by individuals trained to such work, even though the impetus comes from the public. That this consummation has not already matured would seem equally the fault of both sides: the laity has not seen clearly that it can not make progress alone, while the medical profession has been impeded by the tradition which ignores the potent fact of absorbing lay interest in preventive medicine. We must realize that a new era has dawned and that the people have sensed their responsibility in advancing the health and general welfare of the community. Both groups are imbued with

the same purpose, the same ambition to reduce the total of human distress, and they are both possessed of the same ideals, of the same magnanimous conception, differing only in the method of approach; but, likewise, both groups are handicapped, the lay public by lack of technical equipment to carry through a health program unassisted, and the profession by inability to institute and organize health movements.

It behooves both groups to compromise, for only by intelligent cooperation can the greatest good be accomplished. The common note of the present age is cooperation, in business, in social relations, and of necessity also in the broad field of disease prevention. In some sections of the country violent controversy has already displaced cooperation much to the detriment of local health enterprises. It is a source of satisfaction that the two forces in our State of Iowa are now working harmoniously for the general good. Let us understand that the people appreciate the value of having health, and let us believe that it is really a privilege to cooperate with the public in such moves. As Kipling has said:—"It ain't the individual nor the army as a whole, but the everlasting teamwork of every bloomin' soul."

The Maternal and Infant Hygiene work in Iowa has been in an increasingly precarious position because of the general failure to appreciate the difficulties already pointed out. Some years ago, when Federal and State appropriations were made available by legislation, the funds were placed at the disposal of the University, and the work was placed under the Extension Division, where lay direction was practically inevitable. Various lay organizations, which had been largely responsible for the legislative action in the belief that they needed more in the way of community health work than the physicians were willing to give, sensed the opportunity thus offered and demanded that the fund be put to work. Under the stress of this demand, there soon appeared individuals and groups from the Division assisting lay organizers in baby shows, mothers' conferences, and similar projects, in which the local profession had, or took, little or no part. It is easy for physicians to see why resentment was aroused, and with that resentment there faded all immediate chance for doing any lasting good, for cooperation is vital.

An analysis of the situation will show, I believe, quite clearly, that lack of cooperation has been exhibited especially by the profession. Outsiders may rail against this medical attitude but must accept it as a fact, which must be faced squarely. A health clinic can not function prop-

*Presented before the session of the Iowa State Association of Registered Nurses at Marshalltown, October 18, 1929.

erly unless the physicians of the community support it, and they will not support it, even under the demand of a lay group no matter how strong politically, unless they have had some hand in its development.

If the laity would appreciate the importance of medical leadership and responsibility and would seek to interest medical support in the days when these movements are being founded rather than after they have floundered in the quagmire of medical ignorance, many causes of disagreement would be avoided. They should remember that until very recently the profession has been interested in health only in so far as it is a purely personal problem, and that the majority of physicians are socially near-sighted by reason of the personal, intimate relationship with the public, which has been for centuries their only contact.

The University authorities, to whom has been given the task of directing the State program of Maternal and Infant Hygiene, are anxious to further the alliance between the two groups concerned with this problem. They are convinced that the present spirit of cooperation must be fostered and that every effort must be made to avoid independent action. Hence the new program which is now in process of formulation, with the general principles involved clearly appreciated by those in control.

As an essential first step, it is proposed to place the operation of the program under the College of Medicine, where surely it rightly belongs. This will correct one obvious wrong, since it will ensure medical control; but unless much more is done, unless radical changes in procedure are effected, unless the profession is made to realize that the change of form carries with it a change of heart, they will not be convinced. So, with the change of status must go a change in operative methods. The profession must be supported, it must be made to feel that it is still, as always, indispensable in the health life of the community and in all phases of that life.

My own interest in this dual activity revolves chiefly around its maternal welfare aspect, and it is of that I would speak. I am sure you are already familiar with the oft-quoted statistics showing that the United States stands nearly, if not quite, at the end of the list of civilized nations, whenever maternal mortality is considered; that, since 1900, in spite of the perfection of anesthetics, and aseptic and antiseptic technic, this mortality has not been diminished; sixty-six women still lose their lives for each ten thousand live births. I shall not enter into a discussion of the factors which may serve to make this situa-

tion look worse than it actually is, but I shall insist that our maternal mortality is higher than it should be. More than one-half of these maternal deaths are due to puerperal infection and the toxemias of pregnancy, diseases which are for the large part preventable, and the responsibility for these deaths lies both with the public and with the medical profession. With the former, because they are still harboring the idea of their ancestors that pregnancy is a perfectly normal phenomenon to which no attention need be paid until delivery is imminent; and the latter, because they do not keep abreast of modern developments, and because they tend in a lackadaisical way to minimize the dangers of pregnancy.

You may say that education is the answer, and I agree; but how shall it be carried on, where shall it start, and whither shall it proceed? Obviously, it would be useless to educate the public to demand attention and advice, unless the profession generally is convinced that such attention is desirable and conducive of great good. Equally obviously, then, attention must first be directed at the profession—stimulation of public interest may well wait. This is the essence of the new maternal welfare program, and it is hoped that the profession will agree with its logic.

The inspirational program which is being developed aims at a revival of interest in obstetrics, a field which provides a great part of the practitioners' work, but which is given too little time in the curricula of our medical schools, and receives scant attention in the programs of the average state and county medical society meetings. At the last meeting of our own State Medical Society there was, I believe, not a single obstetrical presentation. Many physicians seem to assume that while progress is being made constantly in other fields, there has been no advance in obstetrical diagnosis and treatment. It is not uncommon to find physicians, who advocate and practice diphtheria immunization, still giving chloroform to their eclamptic patients, still curetting the uterus in post partum infection, and still delivering their patients without sterile gloves and with no anesthetic, although these latter practices were widely condemned years before the use of toxin-antitoxin was known. And the reason is not hard to find; they hear and read of preventing diphtheria and know that the public is demanding that protection; but, not unlikely, they have not had brought to their attention the use of morphine, chloral, magnesium sulphate, and blood-letting in the treatment of the toxemias of late pregnancy, nor of foreign protein stimulation and transfusion in puerperal sepsis, and insufficient stress has

been laid upon the modern obstetrical technic involving rubber gloves and various anesthetic methods well adapted to home use. Actually, as can be seen, this state of affairs is not so much the fault of the individual practitioner as of the medical leaders, who in each community determine very largely what shall be presented at medical meetings and therefore serve to direct the current of local medical thought.

It is believed that this condition can be remedied easily by stimulating interest in a relatively small group, and at the same time providing a clearing house, where assistance may be obtained in making up balanced programs. With the State as the unit of endeavor, the State Society provides the central office, whence suggestions may well go. The Council of the Iowa State Medical Society is in sympathy with this idea and such a program bureau has recently been established at headquarters. This organization can keep a perpetual list of the programs offered each component county society, and it may be within its province occasionally to suggest that certain subjects have been long neglected and should be given a place on the program in the near future. In some such fashion balance may be attained, and the local physicians assured of the consideration of a wide range of subjects, based upon their needs as general practitioners.

This portion of the program includes also the use of motion pictures to supplement the spoken word. A generous library of films illustrating certain procedures in obstetrical practice is being accumulated, and as opportunity offers this will be increased. Incidentally, a professional camera with accessory equipment is already available so that particular phases of the work not covered by existing films may receive the attention which they demand. It is also hoped to prepare films demonstrating obstetrical nursing technic for undergraduate teaching as well as for presentation before the meetings of nursing associations. Moreover, a series of films for lay meetings is in hand covering the general subject of pre-natal care in a popular fashion, and, believing that sex education of girls actually comes within the province of the maternal welfare side of preventive medicine, talks and film exhibitions on this subject are also contemplated.

More extensive post-graduate work is likewise under consideration, although no definite plans have been laid, since the preferred method of procedure has not been decided upon. Two particular schemes, each with its strong and weak points, are being widely adopted. One includes short, intensive courses offered in a single local-

ity for a given period of two to four days, while the other proposes a more extensive review in several adjacent localities over a period of eight or ten weeks, one day each week being spent in a town centrally located in each area. The latter plan has been used for some time, particularly in the South, and has been acclaimed a success, especially since it requires the physician to be absent from home for only a part of one day each week. Provided experimental courses of this nature now being conducted prove successful no doubt it will be adopted as the plan for state-wide adoption. Without doubt, also, the University will offer both short and longer post-graduate courses, as soon as a sufficient need becomes apparent, and post-graduate instruction for nurses may well be included.

This program, as outlined, emphasizes that most of the effort will be directed toward the profession, although it is not proposed to neglect the laity. In view of the fundamental need for co-operation and the realization that health movements can hardly prosper without medical assistance, it is believed that participation of the Division in local health plans should be determined by the attitude of the local profession. When a particular movement is sponsored by the medical society, and when they request assistance, it is planned to give all possible help, since such requests imply the ever essential cooperation. In this connection, it may be possible for the Division to help inaugurate and possibly to help support local efforts at the establishment of permanent pre-natal centers in the larger communities, and to foster conferences with expectant mothers in more isolated sections. But independent traveling clinics are not to be attempted unless they are supported by appeals from the profession. Health movements must be backed by both groups; independent action is both futile and dangerous.

It has also been suggested that this fund might well support comprehensive investigations into the question of maternal mortality in the State, and this work may soon be inaugurated. The government figures now available are reliable within certain limits, although detailed study may be expected to produce many alterations. Moreover, statistical studies of deaths in other localities lose a great deal of their significance by reason of their geographical separation from those most concerned, whereas it makes for more serious thought to be confronted by figures from one's own State, or County, or City.

Finally, let the profession remember that all successful health movements of the past have re-

ceived great stimulus from, and have in fact been made possible by, the interest of lay organizations, while professional effort has been absolutely essential to their success. Cooperation must be our watchword, for without it there will be failure, but with it undoubted success, of which the whole State may be proud.

"New occasions teach new duties,
Time makes ancient truths uncouth."

—Lowell.

PROGRESSIVE DEAFNESS*

ROBERT M. LAPSLEY, M.D., Keokuk

There are different pathological conditions in the many patients who are the victims of progressive deafness. It will not be my effort to confine this paper to any one kind. What are generally referred to as causes of gradual increasing hardness of hearing are chronic catarrhal otitis media, and oto-sclerosis.

Exudative catarrh of the middle ear has quite a little inflammatory trouble in the beginning, and is most nearly a catarrhal process, and is likely to be associated with diseases in the nose and throat, or may be started by some of the infectious diseases. It is likely to be due to local bacterial infection.

Chronic adhesive catarrh of the middle ear may follow exudative catarrh and has less sub-acute inflammatory appearance, but cicatricial changes take place in the tympanic cavity, and the motion of the ossicles is interfered with. The membrana tympana becomes drawn in and fixed, and changes take place in the inner ear.

Oto-sclerosis has the larger part of its pathology in the changes in the inner ear and the bony changes that fixes the stapes in a more or less immobile condition. The bony changes in the fixation of the stapes and the labyrinth resemble the ones in the joints of the fingers in arthritis deformans, and after looking at pathological specimens it looks like a completely hopeless condition.

The causes of these various pathological conditions are of the utmost importance, and any relief from these conditions in the future will depend on a better solution of the causes than we now have. The pathology is of such a character that it seems improbable anything can be done toward curing the troubles after well established, but it seems possible more can be done for prevention.

The catarrhal forms of chronic ear trouble may be partly resulting from adenoids, diseased tonsils,

sinus trouble, or various obstructions of the nose.

Dr. Wilhelm Meyer probably did more than anyone else in prevention of deafness by his discovery of the effect adenoids have on causing ear disease, and the relief that followed their removal. It seems that his discovery must by this time have lessened the amount of ear trouble coming on later in life, as so many of these troubles are not noticed for a long time after their beginning. One can lose a good deal of what we might call the surplus hearing before having an impression that the hearing is failing.

Infected tonsils have considerable effect on the ears, but if a patient's post nasal space is normal they frequently have much trouble with tonsils, and no effect on the ear.

The results of nasal operations as an aid in relieving ear trouble seems very often disappointing.

Emerson¹ has brought out the result of focal infection on the internal ear or auditory nerve. The usual theory of tonsils and adenoids as a cause of ear trouble is more the direct connection they have with the eustachian tube as obstructing it and infecting the ears, and in fact, that is well established, but the thought that absorption in the system may affect the auditory nerve leads one into a different line of thought. Various theories have been advanced besides focal infections.

Constitutional causes of some unknown kind most likely would account for oto-sclerosis. Nothing so far suggested is of much value. May not chemistry sometime help in solving the cause of this insidious disease?

Oto-sclerosis is likely to start in children, and young adults, but it often runs on quite a number of years before any particular attention is paid to its presence. In fact, in all kinds of progressive deafness the trouble has usually developed quite far before sufficient symptoms are acquired to cause a patient to seek relief.

It is not difficult to diagnose a case of progressive deafness, as the history will do that, together with a slight examination, but it is sometimes difficult to give it an exact classification.

The use of tuning forks helps in distinguishing nerve deafness from the middle ear, and are of a good deal of help in diagnosing oto-sclerosis, but it seems in most people with progressive deafness far enough developed to cause hearing to be defective enough to prevent a patient from hearing ordinary conversation, the bone conduction is lessened as well as air conduction.

It is not always easy to be sure of oto-sclerosis, although so far as the patient is concerned, it

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often makes little difference, because if the condition cannot be differentiated from oto-sclerosis the result to the hearing will be practically the same.

Many cases are at least partly hereditary. Whatever difficulty there may be in diagnosis it does not compare with the difficulty in getting any permanent improvement by treatment.

In the various acute and sub-acute troubles, particularly in children, in cases that might result in more serious or progressive deafness later, a good deal of benefit may result in treatment, such as removing tonsils and adenoids in children, also in the care of ear trouble in the infectious diseases of childhood, and in looking after acute, catarrhal, and suppurative middle ear inflammations from all causes.

It is doubtful if any of these things will have an effect on oto-sclerosis.

Whatever can be done, however, in benefiting severe progressive deafness, must be in the way of prevention, as it cannot be cured.

A generation ago Dr. Daniel Bennett St. John Roosa, one of New York's great otologists, in a discussion as to the treatment of old chronic deaf cases, where various otologists had made suggestions as to beneficial treatment, said, "Yes, gentlemen, they will all hear, but it will be when Gabriel blows his horn." It seems to me that is about as true today as it was when Roosa said it.

Great progress has been made in otology, but this branch still has much to look forward to.

When one looks at the pathological specimens, it seems sure the improvement must come in understanding the causes better and preventing the trouble.

I do not mean by this that treatment is altogether futile, but I do think many ear treatments are carried on to no purpose.

In some cases treatment with some of the methods of inflation are worth while being carried out.

I think if any case shows improvement of hearing in that way it is worth continuing the treatment for a time, but those cases are usually in the early stages, and if they are true progressive cases, later on they will usually not respond in the same way. If inflation does not improve the hearing, and especially if the tubes seem open, it seems useless to carry on a long course of treatment in that way. Operations on the nose and throat and removal of infected teeth seem worth while during early stages, but in far developed cases promise little or perhaps nothing.

Internal use of iodide of potassium in oto-sclerosis may be of benefit and is often worth a trial.

Roentgen rays in the treatment of chronic ear disease has some recommendation.

Trostlar² says much benefit has been given the partially deaf when such deafness is due to eustachian catarrh, and in oto-sclerosis occasionally some relief from tinnitus and possibly improvement in hearing.

Geo. W. Mackenzie³ speaks of improvement of perceptive deafness by removal of infected teeth.

SUMMARY

1. Progressive deafness varies in pathology.
2. The most promising time to prevent deafness is the care of ear disease in childhood.
3. The removal of tonsils and adenoids in children where they cause ear disease is of much value.
4. The removal of various points of focal infection in inner ear and nerve troubles is worth consideration.
5. The prospects in future improvement in treatment in progressive deafness, depends mostly on a more thorough understanding of the causes than we now know, and the possible chances of their removal. This future improvement will most likely come from the experimental work in laboratories and hospitals such as is now being sponsored by the American Otological Society, and some endowed hospitals for research work.

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Discussion

Jesse B. Naftzger, M.D., Sioux City—Dr. Lapsley has given us a very complete discussion of the various forms of progressive deafness. Unfortunately, as has always been the case, he has left us little hope of relief from this distressing, insidious condition. I will briefly discuss the diagnosis, etiology and treatment.

The differential diagnosis of progressive deafness is not always easy because there may be a combination of ear conditions. For instance an oto-sclerosis may develop about middle life in a case which had had otitis media earlier in life and a nerve deafness may develop in an oto-sclerosis. As a matter of fact all cases of oto-sclerosis show a nerve deafness eventually. When, however, in the cases of insidious development of deafness we find a normal drum membrane and an open eustachian tube and where the functional tests show an increased bone conduction, negative Rinne and an elevation of the lower tone limit, a diagnosis of oto-sclerosis is justifiable. In oto-sclerosis we think first of a fixation of the foot plate of the stapes but we must remember that the spongifying process typical of oto-sclerosis may involve various parts of the bony capsule of the labyrinth and this may give symptoms of nerve deafness. This would show a decrease or lowering in

the high notes. A family history of poor hearing is important; the pinkish glow from the promontory is present in a certain number of cases but when present is considered diagnostic of oto-sclerosis. Paracusis Willisii is described by a number of these patients but because of the investigations of several men during the past few years the importance of paracusis in diagnosing in oto-sclerosis has lost much of its significance.

The etiology of chronic progressive deafness, as Dr. Lapsley stated, is not definite. In chronic middle ear cases an otitis media may have been the cause with later formation of adhesive bands between the ossicles and drum. The cure of the otitis media would be looked for in the naso-pharynx or nose; in the naso-pharynx diseased adenoids and tonsils and in the nose disease of the nasal accessory sinuses. We have personally observed many cases of acute otitis media which definitely followed an acute sinus infection. In the etiology of oto-sclerosis many theories are being advanced. It has been proven quite definitely by some that the changes in the bony capsule of the labyrinth are due to general causes and not heredity.

Doederlein states that the bony process in oto-sclerosis is similar to rickets and osteomalacia. Josephson states that the essential feature of the pathology of chronic progressive deafness is the disturbance in vascularity associated with changes in the vascular bed in the petrous bone—a hypothesis comparable to that of Wittmach.

Much experimental work is being done investigating the cause of oto-sclerosis. Among the causes mentioned by some are metabolic changes, endocrine disturbances and Kopetzky and Almour have reported abnormal calcium and uric acid findings in the blood. Gottlieb believes that poisons carried by the circulation produces changes in the hearing organ; he has produced lesions of the cochlea in guinea pigs by injecting fecal extracts from cases of progressive deafness. Treatment: Focal infections have been mentioned by the author and should be emphasized, particularly tonsils and adenoids and nasal accessory sinuses. The work of the investigators who are making a study of oto-sclerosis should be carefully studied. It seems very probable that some general disturbance, endocrine or metabolic changes will be found to have a marked influence in the development of progressive deafness.

For those who are beyond medical help a hearing device may help greatly. I want to especially urge the early and thorough examination of patients showing defects in hearing, especially the tests of school children by the audiometer. Obviously it would be impossible for all schools in small towns to have an audiometer of their own but a centralization of examinations could easily be arranged and otologists must be the ones to start this work and procure the interest of parents, teachers and school boards.

I think the demonstration given by Miss Johnson

should stimulate the use of the audiometer in the school and the early detection of beginning deafness.

Dr. Charles B. Taylor, Ottumwa, Iowa—The gentleman did not call attention particularly, in his paper of summary, to accessory sinuses, acute or chronic.

Sphenoid infection with discharge which drops down and hangs to the pharynx wall or produces a red shining appearance is definitely causative of tube-tympanic catarrh. There is the possibility of the sphenoids and ethmoids being treated successfully, and not necessarily operated. If necessary, after they grow older, can operate if they need operation. Greater majority of cases can be cared for by packs with good effect, I believe.

Dr. H. B. Young, Burlington—We all know progressive deafness is actual loss of function from disuse. Becoming discouraged and not trying to hear is a great factor. I am wondering since the discovery and invention of the radio, what might be brought about by the systematic use of the head phones, as heretofore these tests have been so monotonous. Now with the use of the radio there would be something different and entertaining each time. I would like to see what effect the systematic use of radio headphones would have on those cases; I think they could be greatly benefited.

Dr. James E. Reeder, Sioux City, Iowa—With reference to hereditary deafness I wish to report a case of a young lady, a physician's daughter, with a hereditary background for four generations past, definitely shown to be progressive deafness. She was sent to the Massachusetts General Hospital, June, 1928, and under the use of large doses of ammonium chloride and parathyroid hyperdermically and restricted calcium diet, the audiometer at the end of a year showed her hearing to be practically normal with the cessation of the tinnitus. It is true there has not been sufficient work up to the present time to make any definite statement but this procedure in all probability within a few years will be able to show some real definite results in these cases of hereditary progressive deafness.

Dr. Gordon F. Harkness, Davenport, Iowa—I think that we have all had the experience that after a few treatments our patient will say that he is hearing better, yet our functional tests show no improvement. He is making more of an effort to hear, his cerebral centers are more alert and he is utilizing his sense of sight. Much can be accomplished by encouraging such patients to strive to hear better and to develop an appreciation of facial reading and facial expressions.

Dr. Lapsley (Closing)—The paper I wrote was really an outline of a very difficult subject, suggested to me by the chairman. I don't think I would have picked out progressive deafness as a subject to write on as I have such a slight knowledge thereof. I merely made an outline, hoping that someone would discuss it further and I wanted to leave room for Dr. Taylor to say something. I casually men-

tioned sinusitis, but did not go into details. Dr. Harkness' talk about improving people's hearing by making them think they hear better, is worthy of consideration. We know patients often say they hear better, when down in our heart we know they do not, when it comes to testing. But, if you could make them think they hear better, and would develop the ability of lip reading, they will be greatly benefited, but of course it really does not have much to do with increased hearing. Yesterday on the train I met a friend who told me about his little girl who is 14 years old, with congenital deafness, who is attending school in Davenport and who has "A" in all her grades in school. This shows what can be done by a good mind. It is an interesting thought Dr. Young developed on increasing hearing by the radio; this would be a very pleasant manner, if we can do anything by exercising by listening over the radio. The only hearing devices that do much good, in my opinion, are electrical devices.

PROBLEMS IN THE CONTROL OF ACUTE INFECTIOUS DISEASES IN THE RURAL DISTRICTS OF IOWA*

B. L. EIKER, M.D., Leon.

Many of the cases of heart affection, gall bladder trouble and appendiceal disturbance of today can be traced primarily to the acute, infectious diseases of yesterday. Therefore, it must follow that the acute infectious troubles of today will bear cardiac, gall bladder and appendiceal fruit tomorrow. The control of this class of acute diseases becomes of the most vital concern to civilization and organized society. Strange as it may appear, the rank and file of civilization has been exceedingly slow to recognize this important fact, and make an attempt to strike at the fountain head of the trouble. Human life seems to be almost the cheapest commodity the community possesses. Sound the warning of approaching disease as long and as loud as you may, the average citizen will not heed, so long as it does not affect him individually. He prefers to spend his time in talk, lamentation and debate instead of spending it in action and protection. Not until calamity stares him in the face by day and haunts him in his dreams by night, can he be aroused to efficient community protection. Throughout all time there has been a jealousy and distrust of people who think and possess an actual knowledge of cause and effect. Many times this distrust has led to the establishing of rules, measures and laws having for their immediate and remote effect the limiting of power and authority of the people best qualified to exercise power and au-

thority, and placing it in the hands of common laymen. This is done with the presumption that ignorance begets honesty. All goes well until a crisis comes. Then it is that ignorance manifests its incompetency to the nth power; and bewildered, humiliated, and panic stricken the people flock to some one who knows, like helpless sheep gather themselves to their Shepherd when the frightful cry of the hungry wolf echoes through the midnight stillness. These general facts are applicable to practically every line of organized civilization; and in but few is it more glaringly manifested than in the control of acute infectious diseases in the rural districts of Iowa. There was a time when these infectious diseases devastated whole communities and stopped only when all available material had been consumed. The cause was not known and it made little difference in whose hands authority was placed, because the result would be the same. Today this fact does not obtain, and the cause of most infectious diseases has been ascertained. When once the true cause has been established, the control becomes a matter of careful, painstaking, scientific detail. The community is then confronted with three major problems: The first of these problems is a proper and early diagnosis. Second, the co-operation of the patient and his immediate friends. Third, local, active, efficient, legal health administration. The proper and early diagnosis depends upon the physician in charge. With our facilities for laboratory analysis and the excellent opportunity afforded the medical student for observation and actual experience, the proper and early diagnosis offers but little difficulty, and problem number one is easily solved. Co-operation of the patient and his immediate friends is not so easily acquired. Resentment is often manifested at any means or measures that interfere with their personal convenience. Some people seem to take delight in terrorizing their neighbors and spreading the disease. The younger people in the community, as a rule, are much more careful and considerate than the older ones, due no doubt to their education along lines of health and hygiene received in the public schools and through the public press. Although the second problem may fall far short of reaching a point of perfect solution, it is so much better now than in former years that we may safely say great and rapid progress has been made. The third problem is the most difficult. To get active and efficient, legal health officers is almost an impossibility under our present system. In Iowa the township trustees are the local health board in townships, and the town council in incorporated towns. These men, almost with-

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out exception, have no training or qualifications as health officers. They are elected by ballot. Many times they receive their majorities because they are quiet, inoffensive members of society and will not disturb semi-legal practices that are being carried on locally. Many times they are elected because of their antipathy toward modern improvements, such as schools, paving, water and sewer disposal plants. The average voter cares nothing for their efficiency as health officers so long as it does not concern him or his immediate family. If the control of acute infectious diseases, in rural communities, remains where it is now, how long will it take Iowa to make her slogan good—"No Diphtheria in Iowa in 1930?" The answer is, "Forever and Forever." Many factors contribute to the rapid spread of acute infectious diseases but perhaps no one factor has contributed more than rapid transportation. This factor alone necessitates the greatest vigilance on the part of local health authorities and should command the best talent to play the part of the social David to destroy the microbic Goliath that has in the past "slain his thousands." Engineers may furnish all the blue prints, measurements and figures for constructing a bridge across a dangerous river, but unless some one executes the building of that bridge the people must ford the river and take the chances. Medical science may furnish all the details for curbing and stamping out infectious diseases, but so long as the people persist in placing the execution of these details in the hands of incompetent officials, they, too, must ford the river upon the length and breadth and depth of which the word "Death" is stamped in every curve and every crevice. Young people and defenseless children are the ones who suffer most. This neglect ramifies into every part of the social fabric and is so far-reaching in its result that the enormous cost cannot be estimated.

The questions very naturally arise: "How can this great third problem be efficiently met?" "What remedy have we to offer?" The answer is, "Turn it over to people who know best how to handle it." With that thought in mind the recent Legislature passed an act which might properly be termed A Permissive County Unit Plan. Briefly stated, there is a county board of health composed of eleven members, three of whom are chosen by the county medical society. This board has an administrative health officer whose business it is to enforce rules and regulations necessary to control the outbreak whatever it may be. This relieves the physician in charge of all duties except the proper care of his patient, centralizes authority and places responsibility where it primarily belongs. At the same time it brings to the peo-

ple the maximum amount of protection with the minimum amount of friction.

To remedy an existing evil or to change a custom that was once a blessing and later became a menace, it is necessary to break the habit of thought existing in the people directly concerned. It is to break this habit of thought and get the people of Iowa to adopt a different public health unit that has prompted this effort. The plan outlined in this permissive law forms a nucleus around and upon which something beneficial can be built. Whatever change is needed, or whatever change may be made, will necessarily have to emanate from the medical profession. It is our job. None of us will have done our full duty until we have tried to make Iowa as safe from acute infectious diseases as a house built on the rock of Gibraltar is safe from the storms of the sea; and disease as insecure within our border as a snow-flake would be on the crater lips of an active volcano.

Discussion

Dr. Clifford D. Mercer, West Union—The facts presented by Dr. Eiker are the problems that confront all of us who are practicing in the rural districts of Iowa. In some parts of Europe and Asia today the commoner infectious diseases still become plague-like in character, and especially is this true of scarlet fever, which wipes out whole families and entire communities. No such condition exists in America today. There are those who believe that racial immunity has risen to such a point that severe epidemics with a high case of fatality will never again occur. My own limited experience has been that we only see an occasional case of infectious disease today where we saw many years ago. It has been years since I have seen anything but mild cases in comparison with those we saw fifteen to twenty years ago. If we get the desired effect from immunization, in a few years these diseases should become of academic interest only. However, there are a few problems to be ironed out.

A doctor in a northern Michigan town has shown that measles and scarlet fever occur spontaneously. Musser of New Orleans has shown that when measles breaks out there it is spontaneous all over the city. In our own community the infectious diseases are becoming so mild that this of itself is a source of spreading the disease. When you put up a placard in a neighborhood every one in the immediate vicinity stays away from the doctor. A great many of their children harbor the same infection, some of them in a more severe form than the one who is quarantined. If we could isolate these patients without placard, I believe we would secure better cooperation from the public. The school seems to be the best place to keep our finger on the situation. Recently the sixth-grade teacher in our school was found to be infected with scarlet fever. She was

isolated, the children in the room were examined each morning before school, and no child was allowed to come back to school without a physician's certificate. There was not another case of scarlet fever in this room and only one in the whole school of 450 pupils.

Measles and whooping cough seem to be the most difficult to control. Measles, which prevails in all climates and affects all races alike, affects more children of pre-school age, while schools can account for only six per cent of whooping cough. We are confronted with the problem of keeping these children at home, as they do not consult a physician. The local health commissioner in rural communities usually receives only \$25 per year and depends upon the good will of the community for his living.

I heartily agree with Dr. Eiker in regard to his county health officer plan. House File No. 373, seems to me to be an ideal provision. It has been my lot most of the years I have practiced medicine to be a local health officer, and while I have always been backed up by the lay boards which I have represented, the weakest spot in the board has been my weakness to mix up in every neighborhood row. I firmly believe in a full time health officer, a man on a salary and in no way dependent upon the community for a living. I would like to hold that job about a week in my community and then retire for some distance.

Dr. Chas. H. Magee, Burlington—I am likely to bank in a little on my reputation. I have established a good one here. For the last ten years I have been discussing topics in big societies and in little ones, and I have yet to speak well of my fellow man. But there have been presented here papers that I am bound to commend, and this is one of them. However, here is something I have noticed. There is an air of vain pessimism that runs through some of the papers. Yesterday a mere boy from Council Bluffs read a paper, and he brings in a sweeping indictment of the schools of this country. I used to think I knew the corps of teachers in the schools and believed they were doing splendid work, but now comes a man from Leon, he is a lean and hungry Cassius, so he brings in an indictment as to the way health affairs are run in the state of Iowa. I wish that we could just let people alone a little bit. The average man is going to get along pretty well.

I was once doing pauper work in the city of Dublin. You do not know poverty in this country, it is over there one sees it. I have delivered a woman of child and she never had any sepsis at all, she came out flying, and children were running about the streets, fine, robust fellows wanting to fight—the Irish will fight. And I cannot see that there is any need of taking a child from the time he is born and toadying him along.

Now let me say to this essayist that he read a good paper, and I am sorry I have to commend it at

all because it is against my principles to say anything decent of my fellow man.

Dr. D. C. Steelsmith, State Department of Health, Des Moines—It seems to me that Dr. Eiker has sounded the key-note in regard to the control of contagious diseases in rural communities as provided for under the health law. Dr. Mercer has well stated that any physician that goes into a rural community or small town and does as he should do, will be severely let alone by the people. The full-time health officer in any county has as one of his functions that of quarantine enforcement. We do understand that the trustees are supreme at present in the administration of health functions as long as they enforce the law according to the physician's knowledge of the present status of communicable diseases, although it would be well if the county health officer could through proper procedure see to it that the quarantine officers in the rural communities do enforce the quarantine law. His investigation of the various diseases is another requirement. He can go about and investigate these according to the policy established by the county board of health, which is controlled by the medical men. I do not mean that it is controlled by a majority, but that the three members on the county board of health can establish any sound policy they desire; in other words, they have control of the policies pertaining to matters connected with public health activities. There is not one of your cities that can control communicable diseases within their limits if they do not have control of these diseases in the surrounding farming communities. Therefore the full-time county health officer is the man who will investigate and advise in the matter of control of communicable diseases.

The health officer will, of course, have something to do towards stimulating the various immunization campaigns in case of smallpox and other diseases of that type. The full-time, active health officer has reduced and will continue to reduce communicable diseases in nearly all instances, and where this plan has been carried into effect he has within the first year cut their incidence square in two, and during the second and later years there is a gradual reduction of occurrence of those communicable diseases that are so devastating in the later years of life.

As to the cost of this county unit, it is optional. When you desire to establish a county unit with a full-time health officer as the director of health activities, you may go as far as you like. You may have as a unit in the rural counties a full-time nurse, and a health officer qualified to conduct inspections throughout the rural districts of the county and thus protect the people against communicable diseases, while in the city you may go ahead and organize as you please. Most counties are now spending almost as much money on health matters as would be necessary to establish a full-time health unit within that county.

Dr. Frank M. Fuller, Keokuk—This paper and

others that have been presented here give evidence of progress in this society. We used to come to these meetings and hear long discussions as to whether we should put a needle in from the outside, or put it in on the inside, in order to carry out some sort of technic in an operation. Today we are, as an organized body of medical men, dealing with the various problems arising for solution. Those things that are internal, as methods of work, are mere matters of detail which we can get from clinical societies and from the teachers of the world but the factors Dr. Eiker has presented today are the actual problems that are being put forward for solution—by whom? By the people, not by the physicians because we have realized for many, many years that they need solution; but the people are asking in their blind and helpless and ignorant way that we solve these problems for them. Almost every question that comes up between the medical profession and the laity is, I believe, capable of solution if we men who for years have been familiar with the facts will, in a sensible, reasonable and unified way apply the things we know. We have very little difficulty in explaining to people the necessity of quarantine. They have intelligence, and the citizens of Iowa especially possess the very highest degree of intelligence. Our speaker of last evening, Hon. Henry L. Adams of Des Moines, gave us an inspiration as to our wonderful state, but one thing he failed to mention was that we have in this state the lowest percentage of illiteracy of any place in the world. Therefore with this high degree of intelligence existing in the state there ought not to be any great difficulty in putting across to the people the information we have regarding the necessity for proper protection of public health by means of quarantine, carried out through the plan suggested by Dr. Eiker.

In closing I wish to say that in my opinion Dr. Eiker's paper is one of the best prepared, most timely and outstanding papers presented to this Society in a long, long time.

Dr. John H. Chittum, Wapello—I am heartily in favor of a county unit in the administration of public health affairs, but we must not expect too much. I think it has been the observation of every practitioner who has located in a rural community that the spread of contagious diseases is chiefly from unrecognized cases. No county health officer, regardless of how useful or willing he may be, can do very much in suppressing any little focus of infection until it has been called to his attention. One of the speakers mentioned the eternal enmity that falls upon the head of the attending physician who enforces the quarantine regulation. He has to do this anyway because it is his duty to do it under any circumstances, so we must not expect ever to get away from the necessity of eternally impressing upon the laity the necessity of each one having a little feeling for his brother and willingness to protect his neighbor. Because of the cases of conta-

gious diseases that are suppressed or hidden, with no physician called, there is no possibility of obtaining any accurate figures, but I feel confident that in our locality ninety per cent of all the spread of infectious diseases is caused by mild cases in which no physician has been called and the real condition not suspected by the family and allowed to spread in that way, or perhaps where somebody has put something over by hiding what they believe to be a focus in the neighborhood. We never will get away from the necessity of eternal vigilance in educating the laity.

Dr. Paul W. Van Metre, Rockwell City—I think our Society should formulate an adequate publicity platform in which we can place before the public the high ideals we would attain, much the same as the Izaak Walton League and the Federated Women's Clubs are doing.

We do not come out before the public and say that we as a profession desire to cope with unethical practices within our own ranks, eradicate chicanery in our profession, and those who permit their hands to do a criminal act—we gloss it all over. We know that there are in every county those who will permit themselves to be bought at the behest of some anxious parent, those who permit themselves to be bought to handle liquors—we know all these things occur and yet we gloss them over.

I just want to say to Dr. Fuller that we should be unified, so that we may stand together in all things affecting public health. The fact that our brother from Council Bluffs is young is no disgrace to him. I wish I were younger than I am. I think we ought to stand together, fellows, on a high platform, so high that it will appeal to the people and show them that the doctors are anxious to further the public welfare. And this program should have publicity—it should even be on the bill-boards instead of cigarettes. We should pay for it—we should not expect publicity unless we get down and pay for it. And I, for one, would like to see some action taken that will permit such a program to be undertaken. I know this is not the proper place, but where is the proper place?

I simply bring this matter before you because it has something to do with control of disease in the rural community, of which control I am an exponent.

Dr. Fred Moore, Des Moines—I wish to discuss the paper from two points of view: First, the attitude of the public, and, second, the attitude of the profession.

In regard to the attitude of the public, the essayist has well said that it is the older people who are most careless. We all realize that, and it is not likely that we can influence this situation in any way. We can hope that the careful younger group of the present will maintain that same care in the future. Education of the public lies in the school children. The means of educating the child is in the material presented to him during the school year. I do not wish to complain of the schools, but

I do want to state that in the public schools there probably is no material that is offered to our children so lacking in uniformity and careful selection as are the courses in hygiene and health education. There is a group of people from the National Educational Association and the American Medical Association that is meeting this summer for the fifth time for the purpose of discussing this problem in an attempt to determine what are the best things to present to the school children. There is, to my mind, need for future education along the lines mentioned.

From the medical profession we should have interest and support. The bill mentioned by Dr. Eiker is a great advance. I wonder how many of you realize that public health measures might easily be taken out of the hands of medical men. I am advised that a substitute bill was offered in the Legislature which did not give the medical profession any representation whatever. It is the business of the medical profession to see that public health measures are properly directed. It is one of our responsibilities that legislation pertaining to public health matters shall be of proper kind. It is our duty also to have continued interest in these matters and to educate the public and make them realize that we do support those measures in full.

Dr. Eiker (closing)—I thank the members of the Society for the discussion they have given this paper. The one point I would like to call attention to in closing is that pertaining to the public schools, where acute infectious diseases cause so much trouble. It is impossible for people to have these acute infectious diseases without changes taking place in the tissues, and it is the change brought about in human tissue, which in later years causes devastation in the human economy and the breaking up of homes at a time when the individual should be at his greatest earning capacity.

Another point I want to make: We compel a child to go to school. That is right, our schools are the great mills into which we throw our children, and grind out citizens. It seems to me we have no right to force a child to go to school and then not give him adequate protection from acute infectious diseases, which if he contracts even in light form, will so change the tissues of his body that he may be prematurely afflicted with renal and cardiovascular degeneration, a lamentable condition, which, as was so well brought out at the meeting yesterday, causes innumerable untimely deaths.

NEW YORK PHYSICIANS' ART CLUB

The fourth annual exhibition of the New York Physicians' Art Club was shown in the New York Academy of Medicine, the exhibition ending March 15. More than 50 doctors, most of them from Greater New York, were represented by paintings, sculpture, engraving, drawings, jewelry, photographs, and other "objets d'art" at this interesting exhibit.

SOME ASPECTS OF CHRONIC NEPHRITIS*

E. P. SCARLETT, M.D., Iowa City, Iowa

The analysis of the urine as an essential part of the examination of a patient is a recognition of the fact that renal disease may exist without any obvious symptoms to suggest it; it is a sanction for the assumption that albuminuria may exist in the presence of apparently sound health. We are apt to forget these basic facts which have become inherent in the everyday practice of medicine, and to overlook their real significance. Moreover when albuminuria for certain reasons seems to mean renal disease, the attempt to determine the character of the disturbance is frequently a matter of great difficulty. At this point the practitioner is confronted by varied classifications, differences of nomenclature, technical and frequently controversial observations, and the result is a confusion which leaves him puzzled, and hampers him in handling confidently the case before him. It is of no use to say that the confusion is more apparent than real. It is more to the point to affirm that the study of renal disorders has presented us with essential facts which do not readily lend themselves to simplicity of statement nor to a classification which clearly embraces all varieties of renal disease. It is further evident that recent investigations seem to have had a discouraging if not destructive effect upon the customary modes of treatment of the disease. The result of these tendencies has been a certain fatalistic note apparent in the attitude towards nephritis in general.

Admitting the truth of these observations, practice still demands some grouping of the varieties of the disease which shall serve as a working scheme. In this communication it is proposed to review those essential principles of diagnosis and treatment which should be kept in mind in dealing with a case of chronic nephritis.

FUNDAMENTAL CONTRIBUTIONS

Authority and custom have imposed certain concepts in nephritis. A few of these have borne the test of experience and investigation and constitute the fundament of our knowledge. They may be stated briefly, and it is of interest to note that they represent the work and thought of a century.

Bright in 1827 in a contribution which bore the modest title, "Selected Reports of Medical Cases," established the association between albuminous urine and renal disease and properly correlated

*Read before Upper Des Moines Medical Society, Arnold's Park, Iowa, August 8, 1929.

the clinical features of chronic renal disease. Virchow twenty years later, presented a detailed study of the pathologic histology which later gave rise to the terms parenchymatous and interstitial nephritis. Gull and Sutton a little later in the century formulated the conception of chronic nephritis as essentially a disease of the arteries and capillaries. Muller in 1905, sounded a pessimistic note, destroyed the distinction between so-called parenchymatous and interstitial nephritis and introduced the term "nephrosis" to express certain degenerative renal processes. More recently Volhard and Fahr have correlated pathologic and chemical changes with clinical phenomena in a valuable classification and have introduced means of measuring renal function. Finally a group of workers have developed methods of estimation of blood constituents.

These are the essential contributions upon which our conception of nephritis has been built. The modifying statement is at once apparent, that we are dealing with a disease regarding which our knowledge is essentially inadequate.

GENERAL CONSIDERATIONS

It is essential for an adequate understanding of chronic nephritis that certain underlying concepts be kept in mind.

1. The kidney is an excretory organ eliminating waste products chiefly nitrogenous in character, and regulating by means of threshold excretion the concentration of water and certain inorganic substances in the body. The functional unit is what Braus called a "nephron" consisting of a glomerulus and tubule with its blood supply. Each kidney, according to Braus, consists of approximately one million such units. This functioning renal tissue represents at least four times the amount required for physiologic purposes, so that three-quarters or more of the "nephrons" must be affected before serious insufficiency results. It is thus useful to think of "kidney reserve" in the sense that we use the term "cardiac reserve" in heart disease.

2. The etiology of chronic nephritis is not understood. Gray's theory of the concentration of bacterial endotoxins in the glomeruli as the cause is an interesting hypothesis. Chronic nephritis rarely represents the later stage of a primary attack of acute nephritis.

3. It is a progressive disease usually extending over years. This is the most valuable single concept to keep in mind.

4. The progress of the disease and the onset of symptoms in most cases are insidious. It is frequently a feature of chronic nephritis that at the time when a patient is forced to consult a phy-

sician functional renal insufficiency of grave degree exists, and in a short time the individual dies in the end stage of a chronic nephritis that must have existed for years.

5. Nephritis should be regarded not as a disease of the kidney alone, but as a generalized process, involving particularly the cardiovascular system and producing changes in the whole body metabolism. The evidence for such a point of view is apparent in the character of renal edema which suggests profound changes in tissues other than the kidney. It is emphasized by the retinal changes and by the anemia which occur in the course of chronic nephritis of severe degree.

DIAGNOSIS

There is too prevalent a tendency to regard every patient presenting an increase in blood pressure and albuminuria as a case of chronic nephritis. It is true that there is a similarity between what is termed essential arterial hypertension and chronic nephritis, but that similarity ceases when we have considered certain clinical findings, and from the prognostic point of view it is imperative that a differentiation be made between the two. Furthermore it should be regarded as a fundamental axiom in the diagnosis of chronic nephritis that to establish the diagnosis is only one-half the task. It is essential in addition that the stage of the nephritis be determined, for upon this point depends the treatment and prognosis in the case. It is here that renal function tests play an important part.

The approach to this question of course demands, as we have already stated, a working classification of nephritis. Many classifications have been suggested but the majority are too detailed for clinical use. A structural classification involving anatomic diagnosis is frequently impractical and usually is of little aid in treatment. Recognizing the fundamental fact that nephritis is the result of a diffuse inflammatory lesion in the kidney of a progressive character, it is probably best to think of nephritis under the categories acute, subacute and chronic. Frequently more detailed subdivisions can be made with profit.

One such subdivision which may be mentioned is the degenerative group of kidney disorders to which the term "nephrosis" introduced by Muller has been applied. It may be stated that excepting those cases produced by such drugs as corrosive sublimate, nephrosis in adults is a rare condition, that it is usually found in association with the glomerular lesions of nephritis and therefore may be regarded as a form of diffuse nephritis, and that in practice it has had no constant pathologic basis. We have recently observed one case

fulfilling the requirements of this syndrome of nephrosis which progressed to a typical glomerular nephritis. It has further been our experience that cases regarded as nephrosis and treated accordingly with a high protein diet have speedily shown nitrogenous retention, indicating the general nature of the process in which the glomeruli share—essentially a diffuse nephritis.

Acute and subacute nephritis do not concern us at this time. By subacute nephritis of course we refer to those cases which extend beyond the usual course of acute nephritis and in which symptoms continue in a less marked form. Edema is a prominent clinical finding; there is progressive failure of kidney efficiency and usually a fatal termination within a period of months.

Chronic nephritis should be considered as comprising two main groups—those cases in which there is efficiency of function and an absence of symptoms (called by some chronic nephritis with efficiency and by others sub-chronic nephritis), and the other group in which there is beginning or advanced renal insufficiency. The failure to distinguish clearly between these two groups is the origin of most of our troubles, prognostic and therapeutic, in the handling of chronic nephritis. In the first group are those cases discovered during routine or insurance examinations and frequently made miserable by being told that they have Bright's disease and by being placed upon restricted diets of one sort or another as if they were cases of uremia. These individuals frequently live for as long as twenty years and sometimes uncomfortably belie the accuracy of a gloomy prognosis made at the onset.

The diagnosis of chronic nephritis depends upon the correct assessment of the history, the clinical examination, the urine findings and the renal function tests. There are no symptoms characteristic of the disease. In the type of case with renal efficiency, the ambulant cases, there is usually an entire absence of symptoms. The first symptom to appear is nycturia and as the lesion progresses there is gradual loss of strength. Later occur vague digestive disturbances such as a sense of fullness after meals and flatulence. It should be emphasized that loss of weight is a common symptom. In advanced cases an ulcerative colitis is frequently found with its customary group of symptoms. The symptomatology in short is variable and may be renal, cardiac or cerebral in origin. Occasionally a patient with symptoms dating back for a period of weeks only becomes ill and dies in the end-stage of nephritis.

The cardinal clinical findings are elevation of the blood pressure (particularly the diastolic phase), cardiac hypertrophy, and retinal changes.

Edema is not a constant sign and may be the result of cardiac insufficiency. Anemia is practically always a sign of advanced cases. Cerebral phenomena fall into two main groups—the convulsive which occur without nitrogen retention, and the true uremic associated with nitrogen retention. In rare instances chronic nephritis may progress to fatal uremia without any appreciable involvement of the cardiovascular system. We have seen several cases with death in the end-stage of chronic nephritis without any gross cardiovascular changes being present.

The urinary findings should be mentioned in one or two particulars. Albuminuria is frequently the first clue to an existing chronic nephritis. Without discussing the various conditions which may give rise to albumin in the urine, it should be noted that chronic urethritis, particularly in younger men, is a common cause of albuminuria which is frequently overlooked. Strenuous exertion and, in certain individuals, moderate exertion may produce a temporary albuminuria. Albumin has been found in the urine of every member of a boat crew after a race. In many cases of well established chronic nephritis albumin may be small in amount, and frequently absent for periods of time. Casts are more constantly present and are a valuable sign. Red blood cells should always be looked for. Their presence will frequently settle a case as nephritis which one has been inclined to classify as nephrosis.

The renal function test is to nephritis what the blood sugar estimation is to diabetes. Many have been described but the two hour test is the simplest and most serviceable. In a case of nephritis under observation over a period of years renal function tests can be made from time to time, acting as an index to the patient's condition and as a guide to treatment.

Having data from the sources which we have listed one is then in a position to assess the case of nephritis. Those patients presenting no symptoms but a mild nycturia, with a slight elevation in blood pressure and some cardiac hypertrophy, with albumin and casts in the urine, and with slight loss of variability of function in the renal function tests, should be regarded as belonging to the group which we may term chronic nephritis with efficiency. Such cases may live for years. The patients who have many symptoms, notably weakness, polyuria and nycturia, who present a systolic blood pressure in the neighborhood of 200 mm. Hg., cardiac hypertrophy and anemia, with the urine showing casts and the renal function tests a fixation in amount and specific gravity are approaching the end-stage of nephritis, and

uremia should be looked for. Such patients have usually less than two years to live.

How may we know when we are dealing with chronic nephritis of severe degree? Certain features have reliable prognostic value and are always of serious import.

1. Absolute fixation of the specific gravity at a low level in the two-hour test.
2. A well marked retinitis in which the principal findings are exudate along the vessels and "cotton-wool" patches.
3. Cardiac decompensation developing in the presence of the nephritic changes.
4. Anemia which usually parallels the degree of renal damage.
5. A blood creatinine estimation over 5 mgm. per 100 c.c. which usually indicates a fatal issue within six months.

It is most important and sometimes difficult to differentiate chronic nephritis from arterial hypertension with or without arterio-sclerosis. The differentiation is most readily carried out by the renal function tests, but occasionally a patient with essential arterial hypertension will show a slight impairment of function comparable to an early chronic nephritis of mild degree. The patient with arterial hypertension is older as a rule, the blood pressure is higher and the other cardiovascular changes more marked; there is usually a long history with persisting symptoms, even occasionally a cerebral accident with complete or partial recovery; there is no anemia; death usually takes place from cardiac failure or from a cerebral lesion. It is useful to remember that when anemia develops in a case of arterial hypertension or arterio-sclerosis, renal insufficiency has ensued.

TREATMENT

Concerning treatment one or two aspects only of the problem will be considered. It should be admitted frankly that the treatment of chronic nephritis is not on a rational basis. The result has been, in certain instances, extravagant modes of treatment, justifying Dickinson's satirical comment: "The great danger of the disease is that some one will find it out and try to treat it." The essentials of treatment depend upon the recognition of the condition, the proper evaluation of the clinical and laboratory findings, a determination of the immediate prognosis with a view to regulating the life of the patient, and finally the use of symptomatic measures. Treatment should always be an individual matter.

The most important measures in the treatment of the earlier stages—the period of chronic nephritis with efficiency—are the removal of all

foci of infection thereby protecting the patient as much as possible from intercurrent infection, and dietary control depending upon the circumstances in the case. Salt and water may have to be restricted in those cases showing recurring edema. Protein should be restricted to 60 to 80 grams daily which is a maintenance intake. This places no hardship upon a patient, for the ordinary individual's consumption of protein is in excess of his requirements. It should be emphasized that there is no reason for excluding meat protein; extractives, however, should be limited as these provide no nutrition and give the kidney extra work.

In more advanced cases it is a good plan to use Van Noorden's fruit juice and sugar diet one or two days a week.

Diuretics have no place in the treatment of nephritis as they violate the fundamental therapeutic principle of rest for damaged structures. If there is associated cardiac insufficiency, digitalis may be helpful. The production of sweating by hot packs and other measures is a time-honored mode of treatment which should be abandoned except in a very few instances. The practice is exhausting to the patient and may cause circulatory depression. Furthermore it has been shown that while three grams of nitrogen may be eliminated through the skin in a day, eight grams can be more easily eliminated by the bowel.

Finally it should always be borne in mind that intercurrent infection has more to do with causing a fatal issue than the renal condition in itself. A quiescent nephritis under the influence of an acute infection may pass rapidly into uremia and to death. Constructive treatment, therefore, is concerned with the ambulant patient. The individual who comes to the hospital in uremia has usually but a short time to live and treatment is at best an heroic business.

CONCLUSION

Every subject in medicine has running through it the thread of proven truth, but with an encrustation of empirical observances which sometimes obscures the central truth. In nephritis this is particularly true. Chronic nephritis is presented as a progressive generalized disease-process usually with an insidious onset and course. Its diagnosis depends upon the assessment of a group of factors. Renal function tests provide the index to the severity of the disease and to its treatment. The early phase of the disease should be recognized as the most important. Treatment concerns itself with each case as a separate problem and more particularly with the ambulant patient.

College of Medicine

State University of Iowa

(From the Proceedings of the University
Hospital Medical Society.)

REPORT OF A CASE OF SCHILDER'S DISEASE

J. W. BUDD, M.D.

From the Department of Pathology and
Bacteriology

In 1912 Schilder described a disease entity which he designated diffuse periaxial encephalitis. The pathological process of this disease is a widespread degeneration of the white matter of both cerebral hemispheres, the process stopping at the arcuate fibers and basal ganglia. Clinically, the disease is manifested early by disturbance in visual or auditory sensations, apathy and stupor and later paresis. In the terminal stages there is complete blindness and deafness, pronounced stupor and a quadriplegia with spastic contractures. Recently we made a post-mortem examination at the University Hospital which revealed a lesion we thought was of this nature.



Fig. I. A coronal section of the left parieto-occipital region. The narrow white line just beneath the cortex is the only remaining normal white matter.

CASE REPORT

The patient was a white male 13 months of age who was brought to the hospital because of (1) paralysis of both arms and legs and (2) stupor. An older brother and sister had previously died from a similar affection, while five brothers and sisters were alive and well.

The baby was well until 4 months of age when he became cross and fretful, cried frequently and

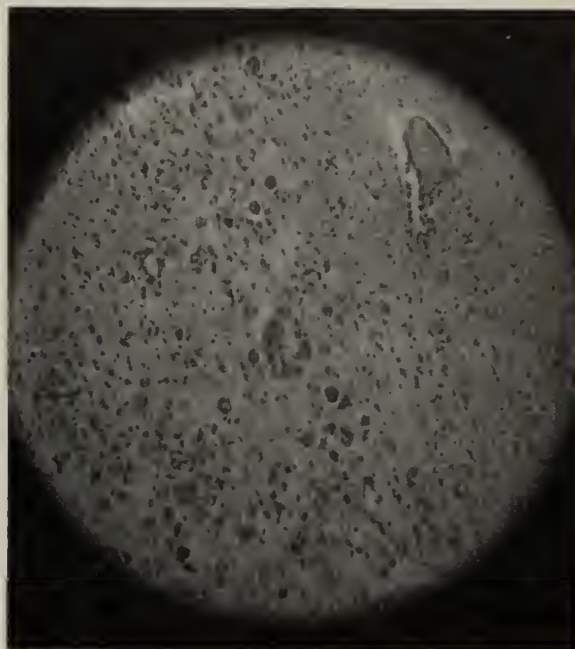


Fig. II x 100. Numerous phagocytic cells, many in the perivascular spaces. Some show vacuoles and many are multinucleated.

refused feedings. Later, hypersensitivity to noise and bright light was noticed. The weight at 7 months of age was 15 pounds but since then there had been a decline in weight and general condition. Occasional periods of stiffness were noted. Apathy and spasticity of the extremities developed which increased until admission.

Physical examination revealed an undernourished and dehydrated baby. The eyes showed nystagmus and the pupils did not react to light. Examination of the fundi revealed optic atrophy. Contracture of the arms and legs with atrophy of the muscles was noted. "Lead pipe" spasticity of the extremities, periodical jerking and opisthotonus were present. The patient's condition became progressively worse and was complicated by otitis media. The patient died 3 months after admission to the hospital, at which time he was little more than a vegetating animal.

A clinical diagnosis of brain tumor was made

and operation was not advised because of the poor physical condition of the baby.

Post-mortem examination revealed an atrophic brain, the cortex of which felt mushy over the firmer and more resistant white matter. Multiple coronal sections of the brain showed almost complete destruction of the white matter; only the most peripheral part (arcuate fibers) approached the normal white color and architecture. The remaining white matter was gray and translucent, in some areas being very dense and in others soft and edematous. In Figure 1 this process is very easily seen. The gray matter of the cortex is grossly uninvolved. Next, there is the narrow band of normal white matter beneath which is the larger gray zone of degenerated white matter. Around the lateral ventricle the white matter is much denser and the tissue appears lighter in color, probably an older part of the lesion.



Fig. III x 450. Hypertrophied and hyperplastic glia tissue. The cells are enlarged and the processes numerous and thick. Many perivascular feet are seen.

The spinal cord was quite small and much firmer than normal.

A summary of the microscopic findings was as follows:

1. There was a widespread degeneration of myelin in the areas described grossly. In addition, the pyramidal tracts and optic tracts were involved. Many of the axis cylinders were also destroyed.

2. There was a very marked reaction to this destructive process characterized by the infiltra-

tion of very numerous large phagocytic cells. This process is seen in Figure II.

3. There was a very marked gliosis of the white matter, a result of the destruction of the parenchyma. Figure III shows hypertrophy and hyperplasia of the neuroglia cells.

SUMMARY

This was apparently a case of a familial degenerative disease of the nervous system characterized by a widespread destruction of the myelin sheaths and a less complete destruction of the axis cylinders. The lesion was confined chiefly to the longer association fibers and conduction pathways. The symptoms depended upon the parts involved and developed as the lesion progressed. The end result was a blind, paralyzed decerebrated organism.

THE ALTERATIONS IN THE GASTRIC FUNCTION INDUCED BY A STIMULATION FROM THE COLON AND APPENDIX

FRED M. SMITH, M.D., W. D. PAUL, M.D. AND W. M. FOWLER, M.D.

From the Department of Internal Medicine

The present study is primarily concerned with the mechanism of the epigastric pain frequently associated with appendicitis and a spastic condition of the colon. In a former investigation, a reflex stimulation of the stomach from the gall bladder, appendix and colon was demonstrated in the dog. The introduction of a few drops of croton oil in either of these structures was followed by an increase in tone and marked increase in the peristaltic activity of the stomach. It was believed that the results of these experiments indicated that the reflex stimulation of the stomach was probably responsible for the type of epigastric pain under consideration in man. The investigation at this point was extended to the patient. Patients with a spastic colon and recurring epigastric distress were first selected for study. A balloon was introduced into the pyloric portion of the stomach and connected with a kymograph. After a control record of the gastric activity was obtained, the colon was distended with air through a rectal tube. There was at once a striking increase in tone and peristaltic action of the stomach and the appearance of the typical epigastric distress. The pain corresponded with changes in tone or the passage of a peristaltic wave over the pyloric portion of the stomach. This induced alteration in the stomach, and the pain promptly

subsided after the deflation of the colon, or was abolished by atropin. In a patient with chronic appendicitis, which was later confirmed by operation, similar changes in the stomach, together with the typical epigastric distress, was induced by massage over the ileocecal region. This patient was fluoroscoped during the palpation of the appendix region and striking changes in the stomach observed and recorded on films. Similar observations were made on patients with irritable colons following the distention of the colon with air. The tender spot in the epigastrium in these patients was confined to the pyloric region and corresponded with the site of the pain. The increase in tone and the peristaltic action of the stomach was frequently accompanied by a prepyloric spasm. Patients with gastric and duodenal ulcer were studied in the same manner. In some, there was no gastric response whatever to distention of the colon. In others, the distention of the colon induced a striking stimulation of the stomach.

Announcements

COLLEGE OF MEDICINE

Announcement of Special Post Graduate Courses

Owing to the active demand for a repetition of the brief intensive post graduate courses in medicine and surgery which were given by the College in 1928 and 1929, they are being offered again in June of this year after the conclusion of the regular academic session.

The exercises in medicine will consist of clinics, demonstrations and lectures dealing with cardiac and pulmonary conditions; this work is given in coöperation with the Iowa Heart Association and the Iowa Tuberculosis Association. A number of visiting lecturers and clinicians of distinction in one or another of these special fields will take part. Some of the sessions will be held in the University Hospitals and some in the State Sanatorium for Tuberculosis at Oakdale. The number to be registered for this course is limited to twenty-five individuals, and a nominal registration fee of ten dollars will be charged for the work. A similar registration fee will be charged for the course in surgery.

The class in surgery will be limited to fifteen members. The course is offered under the auspices of the Department of Surgery, with the coöperation of the Departments of Obstetrics and Gynecology, Orthopedics, and Urology.

Detailed announcements of the courses will be made at an early date.

Graduate Course in Ophthalmology

Arrangements for the post graduate course in Ophthalmology, to be given at the University Hospital, Iowa City, April 28th to May 10th, inclusive, are nearing completion. The schedule includes the following features and approximate hours:

Dr. Edward Jackson, Denver, will lecture on physiologic optics daily, except Saturdays, from 8:45 to 10 a. m., and will illustrate the principles of the science by laboratory demonstrations before small groups of students. Dr. Harry Gradle, Chicago, will lecture on May 8th and 9th. Dr. William Benedict, Rochester, Minn., will give a number of lectures. The staff of the Department of Ophthalmology will present the following subjects daily for one hour periods each: refraction; motor anomalies, paralysis, strabismus and phorias, including the prolonged occlusion test; and clinical external or fundus diseases, according to the material available at the time. In addition to these, the following subjects will be presented: ocular bacteriology, pathology, demonstrations with the slit-lamp by Dr. L. Koeppe, biochemistry and biophysics of the eye, perimetry, surgical clinics, and shop optical practice. The course will be given during the hours from 8:45 a. m. to 12, and 2 to 5 p. m. daily, except Saturdays.

THE NEW YORK ACADEMY OF MEDICINE MEDAL AWARD

Dr. Carl Koller of New York City is distinguished as being the first to receive the award of the Academy Medal for unusually meritorious work in medicine. The award was made at the Annual Meeting of the Academy held on January 2, 1930.

The citation read as follows: Distinguished ophthalmologist; able in the field of biology; painstaking in research; discoverer of the anesthetic properties of cocaine; inaugurator of the era of local anesthesia, conferring upon humanity an enormous relief from suffering; a Fellow of this Academy since 1898; in recognition of his services is awarded the first Academy medal.

In accepting the medal Dr. Koller said: "I do not think I can adequately answer the generous words you have spoken to me. I feel especially honored to be the first recipient of this medal. It is for me a great satisfaction that I have lived to see universal good which the further development of local anesthesia has worked in the course of the years. I deeply appreciate your generous thought in singling out my work for this medal."

STATE HEALTH COMMISSIONER'S PAGE

 Henry Albert, M. D. 

The most prevalent diseases during the past month have been measles, scarlet fever, smallpox, chickenpox, and mumps, in that order.

MEASLES

The number of cases of measles reported (2438) has been exceeded for the corresponding month only once during the last six years. In 1927, 2545 cases were reported. The peak of the epidemic predicted early in the winter has apparently been reached. This does not mean that there may not be an increase in cases in those communities where it is just beginning, but for the state as a whole a gradual decline may be expected. There were fifteen deaths from measles in January.

SCARLET FEVER

Like measles, more cases of scarlet fever were reported than for any corresponding period for six years. Eight deaths occurred during January. It is considered that mild and undetected cases are responsible for the great prevalence. In connection with the mild type now present in the state and especially when scarlet fever antitoxin for therapeutics has been used, the question has arisen as to whether the quarantine period can be shortened when the child who has been ill appears to have recovered very early in the disease. The answer is that the full 28-day period as prescribed in the Rules and Regulations should be observed in every case for the reason that many children who have received the antitoxin have been found to remain carriers of the streptococcus of scarlet fever as long as four weeks and some even longer. The 28-day quarantine period is designed to prevent the spread of disease and not for the protection of the individual child.

Scarlet fever antitoxin for prophylaxis is not recommended for children known to be contacts with a case for the reason that the passive immunity thus gained will be lost in ten days to two weeks, after which the child is as susceptible as before. Moreover, in a large number of cases, children to whom prophylactic doses of scarlet fever antitoxin have been given become sensitized

to horse serum and if it becomes necessary to administer the antitoxin in therapeutic doses for the treatment of the acute disease, untoward effects in the way of serum sickness or even anaphylaxis may occur. It is much better to wait for a contact to become ill with the disease and then give the antitoxin in therapeutic doses.

NEW PAMPHLETS

The Department has just had published two pamphlets, one of six pages entitled, "The Differential Diagnosis of Smallpox and Chickenpox" showing by diagrams the typical distribution of the lesions of the two diseases, the other giving directions for vaccination by the "Multiple Pressure" method as advocated by the U. S. Public Health Service. The latter pamphlet contains diagrams showing the method of holding the needle and the chronological results of the "take" which may be expected. On the last page of the pamphlet is a description of the various types of reactions which may follow the application of smallpox vaccine, viz. the reaction of immunity, the accelerated reaction and the primary "take". Application of smallpox vaccine should always be followed by one of these types of reaction. If it is not, the potency of the vaccine or a possible slip in the technique of the process must be suspected. The method described in the pamphlet seems to allow the fewest possibilities for a slip in technique. Vaccinations should be read 48 hours after application of the vaccine in order not to miss the reaction to immunity which reaches usually its height at that time and has disappeared at the end of a week. A primary "take" makes its appearance on the fourth or fifth day and reaches its height on the tenth day. Copies of these pamphlets may be obtained on request.

RECOGNIZED TYPE OF VACCINATION AGAINST SMALLPOX

No, the Department does not recognize "oral" or "pill" vaccination. The only kind of vaccination recognized by the Department, and, so far as we know, by health authorities throughout the world, is that which is described on Page 41 of the Rules and Regulations of the Department.

* Deceased.

VIRULENT DIPHTHERIA APPEARS IN NEIGHBORING STATES

Reports from Kansas and Illinois indicate that a virulent type of diphtheria has made its appearance in each of those states. In spite of the vigorous efforts made by their very efficient state health departments to limit the spread of the disease, we can be by no means certain that our state will not be visited.

The situation calls for great vigilance on the part of physicians and especially health officers. The appearance of a single case of diphtheria should be the signal for every member of the medical profession of the community to be on his guard and for health authorities to institute a campaign aiming to have every child in the community protected against diphtheria by active immunization with three doses of toxin-antitoxin. Physicians generally will, of course, not wait for diphtheria to appear, but will urge that every child of their clientele receive the immunizing treatment with toxin-antitoxin or toxoid as soon as the child is nine months of age.

TOXIN-ANTITOXIN OR TOXOID, WHICH?

The introduction of "toxoid" by American manufacturers of biologics makes brief comment on such appear appropriate at this time.

Toxin-antitoxin is the form of immunizing agent generally used in this country for the active immunization against diphtheria. Toxoid is the agent more commonly used in Canada. In the former instance, some of the toxic effect of toxin is neutralized with antitoxin. The amount of antitoxin used, however, leaves the mixture with a large amount of immunizing power. Toxoid represents toxin, the toxic effect of which has been partly neutralized by formaldehyde.

Both agents are equally efficacious. Although the reaction produced by either of these agents when administered to infants is very slight, the reaction following the injection of toxoid is less than that of toxin-antitoxin. On the other hand, for older children toxoid gives a greater reaction. For the campaign of the last few years which aimed to get all the children of the state immunized, the Department has recommended the use of toxin-antitoxin. It is the only one which is handled through our biological division. During the course of the next two years, it is expected that practically all of the older children of the state will have received the immunization treatment. When that time comes it may be advisable to promote in the minds of the public, the use of toxoid.

Meanwhile, several biological houses are putting out both agents and, no doubt, some physicians will prefer to use toxoid for children under five and toxin-antitoxin for children of school age.

PHYSICIANS ENTITLED TO REASONABLE COMPENSATION FOR TREATMENT OF INDIGENT VENEREAL AND OTHER COMMUNICABLE DISEASE CASES

The public has a distinct responsibility in connection with the treatment of cases of communicable diseases, since improper treatment results in a menace to the public health.

Although venereal diseases are not quarantinable, nevertheless, in connection with indigent venereal disease cases, it is the duty of the local Board of Health to authorize a physician to treat a case in question.

Physicians should submit the bill for services to the local Board of Health for its approval. This Board should then certify the bill as one submitted for the treatment of a patient afflicted with a communicable disease, that the said treatment was ordered by the Board and that the fee charged represents the usual fee for such service in the community. Such bill is then submitted by the Local Board to the County Board of Supervisors for payment. If the proper legal conditions as mentioned above have been complied with, it is an obligation on the part of the Supervisors to pay the bill. It should be kept in mind that the fee should be no higher than the ordinary charge for such services in that community.

MORTALITY FIGURES FOR 1929

According to the mortality figures just completed, there were 25,562 deaths in Iowa in 1929. The total death rate for 1929 was slightly higher than that of 1928. In 1929 there were 10.5 deaths per 1000 population, whereas in 1928 it was 10.4. These are the round numbers. The actual figures indicate practically no change.

The ten leading causes of death in order—highest given first—are: Heart disease, cancer, cerebral hemorrhage, accidents, pneumonia, infancy (early) diseases, influenza, nephritis, tuberculosis and diabetes. Compared with the figures for 1928, there was an increase in deaths from the first four named diseases and a decrease in the last six.

The ten leading causes of deaths accounted for 18,985 or almost three-fourths of the total number of deaths for the year. A more detailed report of the 1929 mortality figures will appear in the second 1930 quarterly bulletin of the Department.

The JOURNAL of the Iowa State Medical Society

ISSUED MONTHLY

RALPH R. SIMMONS, Editor.....Des Moines
DAVID S. FAIRCHILD, Sr., Editor-Emeritus.....Clinton

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THE ANNUAL MEETING

On May 14th, 15th, 16th, the seventy-ninth annual session of the Iowa State Medical Society will be held at Marshalltown.

The Committee on Scientific Work has put forth their best efforts in preparing a scientific program which will reflect its conception of the needs of the profession. We believe this has been accomplished. You are invited to study the official program published in this issue of the JOURNAL. An unusual number of distinguished guests will be present to give us inspirational instruction. Several innovations will be noted which we hope will merit your approval. Among them, may we call your particular attention to the following:

The House of Delegates will meet on Tuesday afternoon preceding the annual meeting, so, in the words of the By-Laws, "as to give delegates an opportunity to attend the other scientific proceedings and discussions so far as is consistent with their duties." Each delegate will be mailed several days in advance a handbook containing the annual reports of various officers and committees as well as other information.

A surgical clinic and a medical clinic will be held each morning for forty-five minutes each by clinicians of recognized teaching ability. These will be made very practical and instructive so that you will be repaid for the necessary early rising.

Doctor Herman Johnson, assisted by his confreres, Ex-President Wright, President Boyer and Executive Secretary Meyerding, all of the Minnesota State Medical Association, will put on a very interesting presentation on medical economics at the smoker on Wednesday evening.

The President-Elect of the American Medical Association, William Gerry Morgan, of Washington, D. C., has promised to be with us for a part of the session and will give a brief talk at the banquet Thursday evening, as well as a scientific address at the general meeting Friday morning.

The annual dinner of the Society will be held at the Memorial Coliseum on Thursday evening instead of Wednesday evening as has been the custom in recent years. Following the dinner will be heard the addresses of the President and the President-Elect of the Society; also a fine musical program.

The technical exhibit will have ample space on the main floor of the Coliseum where will be found the usual showing of commercial firms in attractively arranged booths.

A scientific exhibit will be a new feature this year and it promises to be a very valuable addition to the instructional part of our annual meeting. Among those who have reserved space are the State University College of Medicine, the State Department of Health, the National Board of Medical Examiners, the Iowa Tuberculosis Association, the Iowa State Association of Registered Nurses, the State Medical Library, the Iowa Heart Association; also an orthopedic exhibit with a practical fracture demonstration, a model clinical laboratory, wax models showing various forms of laryngitis, and, finally, the prize exhibit by Temple Fay will be brought out from Philadelphia.

The Head Surgery Section will hold an intensely practical school of instruction on Wednesday afternoon which will be tremendously valuable to every specialist in this line; also a very full program all day Thursday, following their guest speaker, Dr. George F. Suker, at the smoker.

The smoker will be held on Wednesday evening at the Elks Club. The local committee promises a splendid entertainment and lunch after the speaking program.

All the officers, committees and section chairmen are hard at work and promise you the best state medical meeting ever held.

DAVID S. FAIRCHILD—JAMES R. GUTHRIE

"In recent months, the hand of death has been laid heavily on the Iowa State Medical Society. The leaders of many years are fast passing from among us." ⁽¹⁾ "During the month of March, our profession was called upon to mourn the loss of two of its most esteemed members, that of James R. Guthrie of Dubuque, and David S. Fairchild, Sr., of Clinton. While the medical profession of Iowa has been signally gifted in the past

with men of rare ability and personal attainments, few, if any, have contributed more to its welfare and high standing than the precepts and practice of these two men." (2) These outstanding pioneers in the practice of medicine in Iowa have each enjoyed the highest honors at the disposal of the State Society, honors well merited, since their efforts were untiring and their counsel the best.

With the one, Dr. Fairchild, your editor enjoyed many personal and profitable contacts—contacts which have helped to mold the policies of the Journal since the close of Dr. Fairchild's active editorship. From his wealth of experience, Dr. Fairchild has been an ever willing and valued advisor, co-operating to the fullest in all matters having to do with the advancement of medical science or medical practice within the state.

His constructive influence in the affairs of the State Society have been felt since 1873 when, at the Marshalltown meeting, he was first admitted to membership. Significant of his usefulness and the wisdom of his counsel, we find his name conspicuous in the report of practically every session of the State Society since that date. He was an organizer and first president of the Story County Medical Society in 1873, and the following year became a delegate to the American Medical Association. In 1876, he was named as one of the five members of a committee appointed to prepare a history of medicine in Iowa up to 1876. In 1884, he presided as chairman of the section in microscopy, and in 1888, presided as chairman of the section on medicine at the state meeting. In 1894, he became chairman of the section on surgery, and at this same meeting was elected first vice president of the Society. The following year, he was elected to presidency—an office which he filled in a highly able fashion. In 1905, he was named chairman of a committee appointed by the Society to investigate the defense of physicians in malpractice suits, a committee which later assumed the name as Committee on Medico-legal Defense. In this capacity, he served the Society with efficiency until 1927.

Perhaps the most significant contribution which Dr. Fairchild has made to organized medicine has been the tremendous constructive influences exerted by the Journal of the Iowa State Medical Society under his able editorship. In 1911, Dr. Fairchild became Editor-in-Chief of the Journal, and continued uninterruptedly this editorship until 1928, when he was relieved of this responsibility at his own request. During this period of service, the Journal has achieved and maintained an enviable prestige among Journals sponsored by State Societies. Medical literature has been enriched by his original contributions. His edi-

torials, always timely, bore testimony of his genius and scholarly attainments. Meticulous care in details, so necessary for journalistic success, was reflected in every issue of the Journal. That success crowned his efforts is attested in the fact that when "reminded by increasing years that it is time to place the active work in the hands of a younger man" (3), our Society accepted his resignation as Editor in order that we might benefit in a larger way by his undivided attention to *The History of Medicine in Iowa*, Vol. II, which was partially completed at the time of his death.

"Iowa Medicine has been greatly enriched and honored by having such an outstanding man, as was Doctor Fairchild, for one of its members, and only those who really knew him as he was can begin to understand the irreparable loss his passing will bring to the Society which had honored him, and, which in turn had additional honors brought to it through his untiring efforts and unselfish devotion." (4)

(1) John F. Herrick, President 1917.

(2) William R. Jepson, President 1906.

(3) D. S. Fairchild—Sept., 1928.

(4) T. B. Throckmorton—Secretary, 1916-1930.

THE CALIFORNIA CANCER CURE

During the past few years, through both the professional and lay press, numerous announcements have been made indicating that the solution of the cancer problem is at hand. Without exception, these announcements have been premature, and subsequent investigation has shown them to be fallacious. In many instances, the publicity has been unwanted, and the investigators concerned have exerted every means at their command to prevent such untimely publicity. Unfortunately, in some instances, unwarranted claims have been made by those seeking to benefit by the eternal optimism and credulity of the afflicted.

Within the past few weeks, the lay press headed by the Hearst publications, has given much front page space to the cancer researches of Drs. Walter Bernard Coffey and John Davis Humber of the Southern Pacific General Hospital in San Francisco. It appears with these investigators that the publicity was in no sense planned, and resulted from the admission of a newspaper reporter to the scientific session of the Pacific Coast Surgical Association, on which occasion these investigators presented to the Association the data which they had obtained in their joint study. Further proof of this viewpoint is derived from the notices which they have voluntarily given the professional and lay press, disclaiming that they believe their results indicate a cure for cancer, and attempting to reflect their position as unbiased investigators. Regardless however, of

their intent in the matter, wide-spread publicity has been given their researches—publicity which, for the most part, indicates that sufferers from this dread malady can expect cure provided they can receive treatment at the hands of these physicians. For this reason, San Francisco has become a Mecca for the cancer afflicted, and Drs. Coffey and Humber are being afforded a tremendous volume of clinical material on which to further conduct their investigations.

From their original reports, it would appear that their observations relative to the regressive changes which occur in cancers following their treatment were made incidental to some work which they attempted in the control of high blood pressure. They have used an injection prepared for the super-renal cortex. This is not the first substance, by any means, which has been found to produce regressive changes or control pain in malignant tissue, but so far as we know, is the first product of the glands of internal secretion to be so employed. Until these doctors obtain a greater bulk of evidence, and have been able to watch their results over a considerable period of time, the method must be regarded as purely experimental. While we may entertain the greatest hopes regarding the method, past experience would caution us to regard this form of treatment with great suspicion.

Whether the methods suggested by Drs. Coffey and Humber add materially to the sum total of our knowledge relative to this condition, they have at least stimulated national interest in the cancer problem,—interest which has been manifested during the past few weeks in the Commerce Committee of the United States Senate. This Committee has before them a resolution sponsored by Senator Harris which proposes that national funds be appropriated to foster research work in cancer control. This Committee has summoned both Drs. Coffey and Humber to confer with them relative to the researches referred to above, but the Committee has not yet made a report to the Senate upon the Harris resolution. Should the Committee react favorably towards this matters, it will be the first time in the national history when the Government has sponsored, through the appropriation of funds, research directed towards non-transferable diseases.

REUNION OF ALUMNI OF KEOKUK MEDICAL COLLEGE

In 1927 a group of Alumni of the old Keokuk Medical College, College of Physicians and Surgeons, announced a reunion to be held in Keokuk about the middle of June. This meeting was a decided success,

and because of the enthusiasm which was demonstrated, more extensive plans were made for 1928. Because of the enthusiasm manifested at this meeting, it was decided that for 1930 the graduates from the dental and pharmaceutical departments, as well as nurses graduating from the faculty of the old school, be invited to participate. Invitations will be sent shortly to such alumni as the Committee may be able to locate announcing the 1930 meeting for June 17. Information may be secured from Dr. B. L. Gilfillan, who has been appointed secretary and treasurer for this meeting.

WILLIAM HENRY WELCH

In anticipation of the 80th birthday of Dr. William Henry Welch, "Dean of American Medicine," on April the 8th, a committee of colleagues and former associates developed plans for an international celebration of this date. This celebration was marked by simultaneous ceremonies in London, Paris, Berlin, Leipzig, Tokio, and Peking, as well as numerous points over the United States. In every city where any considerable number of students of this eminent teacher were located special meetings were held, commemorative of the occasion. In Washington, President Hoover delivered the chief address in the Memorial Continental Hall. This address was broadcast by the National Broadcasting Company both to listeners in this country and also by short wave lengths to listeners abroad. At the Washington meeting, Dr. Welch was presented with the first etching made from a plate executed by Alfred Hutty, noted etcher of Charleston, South Carolina. Additional prints will be made and distributed to some forty institutions in this country and in Europe with which Dr. Welch has been connected as student, teacher or adviser. President Livingston Farrand of Cornell University delivered the opening address at the Washington ceremonies. The keynote of the addresses delivered may be stated in the following paragraph quoted from the executive committee:

"America owes more to Dr. Welch than can ever be told in any tributes. Half a century ago he began his leadership in modernizing American medicine. Through the reforms which he has instituted in medical study, through his researches, the many hundreds of doctors trained by him, and the vital public health measures which he has inspired, it is literally true that millions have benefited from his contribution."

The hundreds of students scattered throughout America who have felt the vital influence of this master as teacher, the thousands of physicians who have been inspired by the personality of this leader, and the host who have come to know Dr. Welch through his able and significant writings join in one accord in paying tribute to the "Dean of American Medicine." The Journal extends its felicitations and sincere wishes that Dr. Welch may be permitted to enjoy many additional years of health and usefulness, and that America may be granted the benefits of his eminent leadership for years to come.



WILLIAM HENRY WELCH

(1850—)

William Henry Welch, M.D., LL.D., Sc. D., born in Norfolk, Connecticut, April 8, 1850; son of a physician, four uncles, his grandfather, and great-grandfather all physicians; entered Yale at age sixteen, graduated with honors in 1870; entered College of Physicians and Surgeons, 1871; re-entered Yale for one year graduate work in chemistry; re-entered College of Physicians and Surgeons and graduated in 1874; the same year he entered Bellevue Hospital for one and one-half years interneship; studied in Strassburg, Leipzig, Breslau, Vienna, Paris and London, returning to New York in 1878; instructor of pathology Bellevue Hospital Medical College, 1878-1884; Professor pathology, Johns Hopkins University and pathologist to Johns Hopkins Hospital, 1884-1917; Dean Johns Hopkins Medical School, 1893 to 1898; Colonel in United States Army, 1917-1918; Brigadier-general in Officers Reserve Corps, 1921-; director Johns Hopkins School of Hygiene and Public Health, 1916-1926; Professor of History of Medicine and Director of Johns Hopkins Institute of the History of Medicine, 1927-; "Dean of American Medicine," scholar, scientist, teacher, historian, and humanitarian.

SOCIETY PROCEEDINGS

Boone-Story Society

The bi-monthly meeting of the Boone-Story Medical Societies was held in Boone, Thursday, March 20. After a six-thirty dinner at the Olson Tea Room, the following program was presented: Some of the Commoner Skin Diseases, William Woodburn, M.D., Boone; The Endocrines, R. D. Cruikshank, M.D., Boone. The latter paper was illustrated by lantern slides.

Calhoun County

The meeting of the Calhoun County Medical Society, which was held at Rockwell City, March 18th, was addressed by H. D. Holman, M.D., of Mason City on Physical Therapy, and by L. L. Davidson, M.D., of Lake City on Differential Diagnosis of Renal and Intra-Peritoneal Lesions.

Cerro Gordo County

The Cerro Gordo County Medical Society held its regular monthly meeting at the Hanford Hotel, Tuesday, March 18th; dinner at 6:30. Following a business meeting, Dr. W. A. Rohlf of Waverly, Iowa, president-elect of the Iowa State Medical Association, gave an address and lantern slide demonstration on Rectocele Appendicitis.

He covered the field very thoroughly and it was a very instructive talk from a man who has had so much experience. It was discussed by Dr. T. A. Burke, Dr. C. E. Dakin, Dr. Geo. M. Crabb, and Dr. R. E. Brisbane. The discussion was closed by Dr. Rohlf.

Dr. Yenrick of Rockford, Iowa, and Dr. Culbertson of St. Ansgar, Iowa, were visitors.

Our next meeting will be on April 15th, and Dr. A. C. Davis of Rochester, Minnesota, will deliver an address on "Hyperthyroidism."

T. E. Davidson, M.D., Secretary.

Des Moines County

Drs. Frank J. Rohner and Nathaniel G. Alcock were honor guests and speakers at the regular meeting of the Des Moines County Medical Society held in Burlington, Tuesday, March 11.

Dickinson County

Members of the Dickinson County Medical Society met Thursday, February 27, at the Milford Hospital for a meeting and fracture clinic. All members were present except one.

Hancock-Winnebagos Society

The members of the Hancock-Winnebagos Society met Tuesday evening, March 11, at Garner. Following a six-thirty dinner served to members, wives, and guests, a program dealing with medical eco-

nomics was presented. Dr. John H. Peck of Des Moines, president of the State Society, Dr. M. J. Kenefick of Algona, past president, and Mr. Vernon Blank, managing director, were the speakers.

T. J. Irish, M.D., Secretary.

Hardin County

The bi-monthly meeting of the Hardin County Medical Society was held jointly with the Hardin County Dental Society, Tuesday, March 18, at the Legion hall in Alden. A six o'clock dinner was served to the twenty members and eight dentists present, after which a paper, Medical Economics in Private Practice, was read by Robert S. Shane, M.D., of Pilot Mound. Council Chairman Channing Smith and Vernon Blank, managing director were present. A discussion lead by Dr. Burgess and Dr. Gethman was entered into by the members and guests.

Henry County

The physicians of New London were hosts to the members of the Henry County Medical Society at its regular meeting, Tuesday, February 25. Following a six-thirty dinner served by the ladies of the New London Eastern Star chapter, the business session was held, and after that three scientific papers were presented: The Influence of the Mind Over the Body, G. M. VanAusdall, M.D.; Some Diseases and Injuries of the New Born, E. H. Lum, M.D.; The Injection Treatment of Varicose Veins, E. J. Les-senger, M.D.

Johnson County

The Johnson County Medical Society met Wednesday evening, March 5th, at the American Legion building. Eighty-five members and six guests were present. The average attendance for the meetings so far this year has been ninety-two.

Dr. O. R. Hyndman in the scientific session, presented a paper on, "The Branchial Apparatus," giving a study which has been made of its embryologic and pathologic aspects. Dr. E. M. MacEwen in his discussion emphasized particularly the embryology of the Branchial Apparatus.

The County Health Unit was presented by Dr. M. E. Barnes, newly elected head of Hygiene and Sanitation, in the College of Medicine. Dr. Barnes has had a very extensive experience in the organization of county health units, and his talk was a practical presentation of the subject with especial reference to its bearing upon the physicians in their practice. He showed that it is a practical, workable idea, and that it has given satisfaction wherever it has been employed.

The hosts for the evening were Drs. Ray Fox, A. V. Hardy, T. L. Hazard, Geo. H. Miller, N. F. Miller,

C. S. O'Brien, E. D. Peasley, Wm. Rhorbacher and Frank Titzell.

Five new members were added to the society: Drs. M. E. Barnes and William Malamud, were elected to full membership, and Drs. H. C. MacFarlane, James A. Larsen and William Spear into associate membership.

Geo. C. Albright, M.D., Secretary.

Linn County

Thursday, March 13, the Linn County Medical Society met in regular session at the Montrose hotel. The speaker of the evening was John A. Bigler, M.D., of Chicago, who presented X-Ray Findings in Tuberculosis in Children. At the business session of the society, the officers were authorized to complete an agreement with the county supervisors for the care of the indigent sick.

Page County

The members of the Page County Medical Society met Thursday, March 6, in Clarinda and listened to Heart Diseases and Associate Complications presented by Rodney Bliss, M.D., of Omaha, and A. A. Johnston, M.D., of Council Bluffs.

Polk County

The regular monthly meeting of the Polk County Medical Society was held at the Hotel Ft. Des Moines, Wednesday evening, March 26. Oscar B. Nugent, M.D., professor of Ophthalmology at the Chicago Eye, Ear, Nose and Throat hospital delivered an illustrated lecture on Cataracts which was of especial interest to the specialists in that field of medicine. Psittacosis was the subject of a timely paper read by Granville N. Ryan, M.D. The Coronary Problem in Heart Disease was presented by Walter L. Bierring, M.D., who used several interesting slides and charts to illustrate his discussion.

Drs. Thomas A. Burcham, A. D. McKinley, A. S. Price and John Russell, were elected delegates. A Legislative Committee consisting of Drs. Daniel F. Crowley, Daniel J. Glomset, John H. Peck and Granville N. Ryan was appointed by the president, Dr. Edward J. Harnagel, who also is an ex officio member of the committee.

Scott County

Two physicians from Peoria, Illinois, presented the scientific program at the regular meeting of the Scott County Medical Society held in Davenport, Tuesday, March 4. Sidney H. Easton, M.D., spoke on The Diagnosis and Treatment of Injuries to the Shoulder, and Orville Barbour presented Projectile Vomiting in Infants, and its Treatment. The officers entertained the members of the society at a six o'clock dinner, which was immediately followed by the business meeting and scientific session.

Washington County

The regular meeting of the Washington County Medical Society was held Tuesday, March 4, with

Professor Fred M. Smith of the State University College of Medicine addressing the members on The Heart.

Webster County

On Tuesday evening, March 18th, the Webster County Medical Society met in the class room at Mercy hospital. Dr. N. G. Alcock, head of the Department of Urology at the University hospital, Iowa City, Iowa, gave the paper of the evening. Dr. Alcock discussed genito-urinary diagnosis in relation to general abdominal diagnosis. The paper was well illustrated by case reports and the use of many x-ray films. The paper was very much appreciated by all of those present.

Following the scientific paper there was a short business meeting of the society at which time Dr. E. B. Dawson was admitted to membership. Dr. Dawson has recently opened offices in Fort Dodge and is doing general practice.

The society was gratified to have as guests at this meeting thirty-one doctors from surrounding counties.

John C. Schrader, M.D., Secretary.

Woodbury County

Thursday evening, March 27, the members of the Woodbury County Medical Society assembled at the Elks club for an evening program of motion pictures. After the usual six o'clock dinner, the following moving pictures were shown:

1. Breech delivery, Delivery from face, Resuscitation of baby, and Walcher position. New York Lying-In. One reel.
2. Breech Extraction, Version and Extraction. Forceps on the aftercoming head. Vienna. One reel.
3. Attempted forceps, Version and Extraction, Postpartum care. New York Lying-In. One reel.
- Cesarean section, Demonstration of prolapse of uterus, and operative removal of ovarian cyst. Vienna. One reel.
4. Eclampsia. Vienna. One reel.

Normal delivery, animated drawings and actual photographs. One reel. Eclampsia. DeLee. Two reels.

Roscoe Jepson, M.D., Secretary.

PERSONAL MENTION

Dr. Karl Voldeng, son of Dr. M. N. Voldeng, of Woodward, has just received word that he was awarded the Junior Littauer Fellowship in Pathology in the Albany Medical College and Hospital for the year 1930-1931.

Dr. Charles F. Taylor has resigned as assistant superintendent of the Oakdale Sanatorium to accept a position as superintendent and medical director in the State Sanatorium for Tuberculosis at Norton, Kansas.

Dr. F. H. Rodemeyer, of Sheffield, addressed the Sheffield High School occupations class, Tuesday, February 18th, speaking of the medical work, its advantages and future.

Dr. Walter Matthey, of Davenport, has returned from Philadelphia, where he underwent a sinus operation. His condition is so much improved that he will resume his practice immediately upon reaching Davenport.

Dr. John H. Peck, of Des Moines, spoke to the student body of the Ottumwa High School, Friday, March 14th, on Tuberculosis. His speech was part of an early diagnosis campaign being conducted by various health organizations in Wapello County.

Dr. and Mrs. Martin J. Ryan, and son are spending the next few months in Chicago where Dr. Ryan is doing postgraduate work in surgery at Rush Medical College. Dr. Ryan was awarded one of the eight scholarships annually given by the college.

Dr. M. E. Barnes, of the University College of Medicine addressed the Iowa City Lions Club Wednesday, March 5th, on the subject, The County Health Unit.

Dr. Frank M. Fuller, of Keokuk, spoke before the Lions Club of that city, at its noon meeting, February 25th. His subject was Narcotics.

Dr. G. F. Johnson, of Charlotte, has left for Saginaw, Michigan, where he will take a month's post graduate course at St. Mary's Hospital.

Dr. M. A. Healy spoke at a recent meeting of the Boone High School organizations on the subject, "Don't Work Too Hard."

Dr. Frank W. Porterfield, of Waterloo, attended a four day orthopedic clinic in Rochester, Minnesota, beginning Monday, March 3d.

Dr. L. J. Townsend is returning to Sioux City, after an absence of six months, during which time he has been doing special work in the university hospital at Yale University, New Haven, Connecticut.

Dr. L. D. Jay, of Waverly, is planning to leave this country about April 2d, sailing for Scotland, where he will take special work in surgery and urology at the hospital of the University of Glasgow.

Dr. Anatole Kolodny, formerly assistant professor of surgery of the Iowa State University announces the opening of his offices in the Frances Building, Sioux City. Dr. Kolodny is limiting his practice to general surgery with special attention given to neurological surgery.

Dr. John I. Marker spoke on Mental Hygiene at the dinner meeting of the Davenport Quota Club held March 13th at the Hotel Blackhawk.

Dr. and Mrs. H. J. von Lackum, of Dysart, together with their daughter, and Mrs. von Lackum's sister, spent January and February in Los Angeles, California, returning home the middle of March.

Dr. and Mrs. M. J. McGrane, and son, Jimmy, have returned to New Hampton, after having spent several months in Europe, where Dr. McGrane was engaged in post graduate work in Paris and Vienna.

Dr. T. U. McManus, of Waterloo, addressed the junior and senior medical students of the University College of Medicine on Practical Medical Ethics, Wednesday, March 12th.

Drs. Henry Albert and John H. Peck, of Des Moines, have recently been elected members of Alpha Omega Alpha, honorary medical fraternity at the University of Iowa.

NOTICE OF EXAMINATION FOR ENTRANCE INTO THE REGULAR CORPS OF THE UNITED STATES PUBLIC HEALTH SERVICE.

Examination of candidates for commission as Assistant Surgeon in the Regular Corps of the U. S. Public Health Service will be held at the following-named places on the dates specified:

At Washington, D. C.....	May 5, 1930
At Chicago, Illinois	May 5, 1930
At New Orleans, Louisiana.....	May 5, 1930
At San Francisco, California.....	May 5, 1930
At Stapleton, S. I., N. Y.....	May 5, 1930

Candidates must be twenty-three years and not over thirty-two years of age. They must have been graduated in medicine at a reputable medical college, and have had one year's hospital experience or two years' professional practice. They must satisfactorily pass oral, written, and clinical tests before a board of medical officers, and undergo a thorough physical examination.

Successful candidates will be recommended for appointment by the President, with the advice and consent of the State.

Request for information or permission to take this examination should be addressed to the Surgeon General, U. S. Public Health Service, Washington, D. C.

National Hospital for Crippled Children

There has recently been introduced into the House of Representatives (January 10, 1930) a bill authorizing the appropriation of \$1,000,000 to be used to construct the first unit of a hospital for the surgical treatment of crippled children. This bill, if passed, will provide for the care and treatment of children from all areas of the United States, but will not conflict with the provision made for the care of these patients in institutions maintained within various states.

OBITUARIES

JAMES RENWICK GUTHRIE, A.M., M.D., F.A.C.S.
1858-1930

A host of University of Iowa alumni and professional colleagues mourn the loss from the ranks of Dr. James Renwick Guthrie whose death occurred in Dubuque March 13, 1930.

Dr. Guthrie was born on a farm near Hopkington, Delaware County, Iowa, on July 22, 1858, the son of Peter and Jane A. Guthrie pioneer settlers in the new western country.

At the age of fifteen he entered Lenox College graduating in June, 1878, with the degree Bachelor of Science. After completing certain post-graduate work, his alma mater bestowed upon him the degree of master of arts.

In 1881, he enrolled in the medical department of the State University at Iowa City graduating in March, 1884, having been honored by his class in being chosen as class orator.

After a special post-graduate course in New York City he located in Dubuque where he lived and practiced his profession for a period of forty-six years.

Five years after his graduation he was appointed a member of the medical faculty at Iowa City as professor of physiology and histology, beginning his first course of lectures in September, 1889.

It was the privilege of the writer as a member of the freshman class to attend the first lecture in physiology by Professor Guthrie.

His eloquence, facility of expression and handsome presence made a most happy impression upon all the students. It was the day of the didactic lecture and while the graded course was gradually being instituted, it was still, the custom to repeat the same lectures in physiology for two years, and for a time extending over into the third or senior year.

In spite of these repetitions, the eloquent presentation by Doctor Guthrie always assured a large and interested audience.

His lecture on Sleep became famous and when announced beforehand the amphitheatre was filled to overflowing by the attendance of students from other departments of the University.

In 1893 he was appointed assistant professor of Obstetrics and Gynecology in the department of Professor John C. Shrader.

Although continuing as professor of physiology he gradually became more interested in clinical work and upon the retirement of Doctor Shrader in 1898 as professor emeritus, he was placed in full charge of the department of Obstetrics and Gynecology.

After the death of Dean William D. Middleton in 1902, he became Dean of the Medical Faculty in which capacity he rendered most efficient service to the College of Medicine until 1915 when he retired from active teaching work being elected Dean Emeritus as well as Professor Emeritus of Obstetrics and Gynecology.

He was privileged to participate in the remarkable development of medical education during the last three decades—and was a frequent attendant at the annual meetings of the Association of the American Medical Colleges, serving as president during the years 1903-1904.

Doctor Guthrie joined the Iowa State Medical Society in 1887, and was always an active worker in every movement for the welfare of the society. He was a frequent contributor to the annual programs in his special field of abdominal and gynecologic surgery. His genial personality enlivened every gathering and his eloquence at society dinners was the attractive feature of such occasions.

In 1901 he was honored by election to the presidency of the Iowa State

Medical Society. He was a frequent attendant at the annual sessions of the American Medical Association, serving as a member of the judicial council for a number of years.

During the World War he rendered most faithful service as a member of the exemption board in Dubuque County.

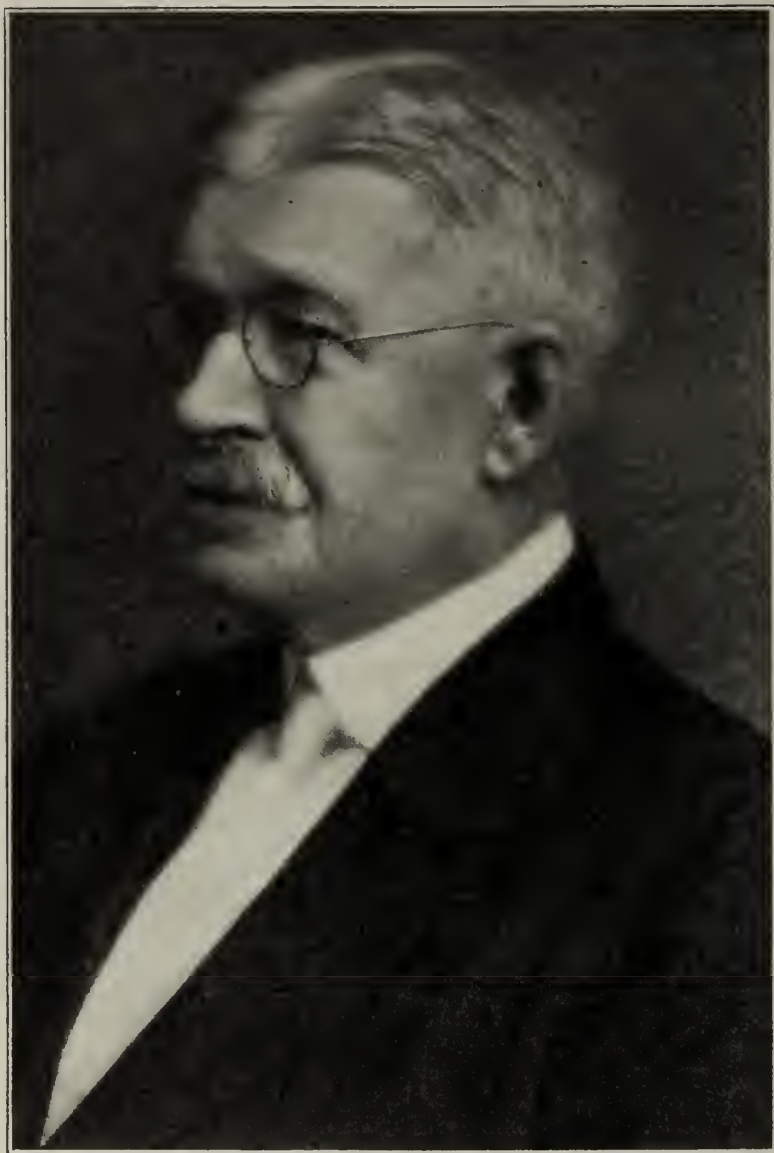
In recent years he has been greatly interested in the educational cancer campaign, giving willingly of his time and talents.

On April 20, 1893, Doctor Guthrie was married to Harriet Dowdell, prominent in later years in the club and social life of Dubuque and the state, who preceded him in death on April 10, 1928. He is survived by one daughter Mrs. Frank C. Baker, of

(Continued on page 185)



JAMES RENWICK GUTHRIE



DAVID STURGIS FAIRCHILD
(1847-1930)

Dr. Fairchild was born in Fairfield, Vermont, September 16, 1847; attended Franklin Academy, 1862-1864—Barre Academy, 1864-1865; read medicine in the office of Dr. J. O. Crampton, of Fairfield, Vermont, 1865; attended University of Michigan, 1866-1867; entered Albany Medical College, 1867—graduated in medicine, December 23, 1868; located in High Forest, Minn., 1869; in 1870, married Miss Wilhemina C. Tattersall; moved to Ames, Iowa, in 1872; made Professor of Physiology in the Veterinary Medical School of Iowa State College, 1879; appointed Professor of Pathology in the College of Physicians and Surgeons (Drake University Medical School), 1882—Professor of Surgery, 1892—Dean of the Medical School, 1903; member of the Iowa State Medical Society since 1873; consulting surgeon for the Chicago & N. W. Ry., 1893—C. M. St. P. & Pac. R. R., 1893—C. R. I. & Pac. Ry., 1900—C. B. & Q. R. R., 1910; President of Iowa State Association of Railway Surgeons, 1896; President of American Academy of Railway Surgeons, 1901; President of American Association of Railway Surgeons, 1914; President of Western Surgical Association, 1898; charter member of American College of Surgeons, 1913; Vice President of American Medical Association, 1914; Associate Editor of Iowa State Reporter, 1884-1888; Editor of Iowa State Medical Journal, 1911-1928; President of Iowa State Medical Society, 1896; Chairman of Committee on Medical History, 1876—Chairman of Committee on Medical Economics, 1905—Chairman of Committee on Medical History in Iowa, 1928-1930.

DAVID STURGIS FAIRCHILD, M.D., F.A.C.S.
1847-1930

When the spirit of Doctor Sturgis Fairchild departed at eventide on Saturday, March 22, 1930, the medical historian of Iowa became a part of that history which he created.

In September of 1928 an appreciative profession dedicated the Fairchild number of the Journal in recognition of his sixty years of dignified labor as practitioner, surgeon, teacher, editor and historian.

Interwoven with the thread of this biography was the story of the pioneer physician who saw the prairies of Iowa transformed to fertile fields and thriving cities. It was a life of interesting contacts with medical leaders and great achievements in the field of medicine and surgery.

The spirit of research was manifest in every period of his active career. The attendance at the International Medical Congress September, 1876, in Philadelphia where he was privileged to hear Joseph Lister, of London, lecture on the "Cultures of Germs" must have had its stimulating influence. His knowledge of the German and French language with access to the scientific literature of the period was a further determining factor.

The opportunity of teaching comparative pathology as early as 1879 in the Veterinary College at Ames and human pathology upon the establishment of the College of Physicians and Surgeons at Des Moines in 1882, developed a knowledge of the nature and cause of disease that added greatly to the scientific value of subsequent contributions in clinical medicine and surgery.

The historical sense seemed to be a natural trait with Doctor Fairchild. As early as 1876 by appointment of Dr. W. F. Peck, President of the Iowa State Medical Society, he presented a history of medicine in Iowa from the earliest settlement to the centennial year.

Ever since through the succeeding half century he has been a faithful recorder of medical tradition in our state and future historians will bend the knee in homage to his wisdom and foresight.

In this parting hour, his colleagues feel they can pay him no higher tribute, for as the Nestor of Iowa Medical History Doctor Fairchild achieved his most enduring monument.

The Committee on the History of Medicine in Iowa.
Walter L. Bierring, Secretary.

Becker, Frederick J., of Atlantic, died March 24th at the age of sixty-four as the result of uremic poisoning. Graduated in 1886 from the State University of Iowa College of Homeopathy and in 1887 from the Hahnemann Medical College and Hospital of Philadelphia. At the time of his death he was a member of the Cass County Medical Society.

Howland, Benton M., of Melbourne, died March 2 at the age of sixty-eight as the result of cancer of the throat; graduated in 1885 from Rush Medical College, Chicago. At the time of his death he was a member of the Marshall County Medical Society.

Crawford, George E., of Cedar Rapids, died March 27th at the age of eighty-one as the result of cancer of the sigmoid; graduated in 1877 from Bellevue Hospital Medical College, New York. At the time of his death he was a member of the Linn County Medical Society.

Wahrer, Maurice, of Fort Madison, died March 8th at the age of seventy-two. At the time of his death he was a member of the Lee County Medical Society.

THE DES MOINES CLINIC

The staff of the Des Moines Clinic and the Polyclinic Hospital will hold their annual clinic on Thursday, April 24, 1930.

Several distinguished visitors will appear on the program as guest speakers: Dr. H. C. Habein, Mayo Clinic, Rochester, Minn.; Dr. Ralph Emerson Duncan, Kansas City, Missouri; Dr. N. F. Miller, University Hospital, Iowa City, Iowa; and Dr. W. A. Rohlf, President-elect of the Iowa State Medical Society, Waverly, Iowa.

The program will consist of operative and dry clinics, scientific lectures, demonstrations and case presentations during the morning and afternoon. In the evening there will be a banquet and smoker at Hyperion Field and Motor Club at which all visiting physicians will be the guests of the Des Moines Clinic Staff.

All physicians of the state are most cordially invited to attend.

All sessions will be held at the Polyclinic Building, Grand Avenue at Tenth Street, Des Moines, Iowa.

JAMES RENWICK GUTHRIE, A.M., M.D., F.A.C.S.
1858-1930

(Continued from page 183)

Kansas City, Mo., who was in Dubuque with her father during his last illness. The fatal illness was a general septic infection of ten days duration terminating in pneumonia.

For many years Doctor Guthrie was referred to as the Dean of Medicine in northeastern Iowa. His associates in the Dubuque County Medical Society honored him last year with a testimonial dinner to commemorate the forty-fifth anniversary of his entrance into the profession. During the ceremonies he was presented with a silver loving cup and there was inscribed thereon "True friendship between man and man is infinite and immortal. Presented to Dr. James Renwick Guthrie in appreciation of forty-five years of honorable service 1884-1929 and as a token of esteem of fellow members of the Dubuque County Medical Society."

The medical profession of Iowa has been honored and dignified by the life of Doctor Guthrie. Forty-six years of sacrifice and devotion in the advancement of human welfare is symbolic of the modern physician, and the memory of his personal charm and fine fellowship will be enshrined in the hearts of his students and friends for all time.

Walter L. Bierring.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

DR. DAVID S. FAIRCHILD,* Clinton, Chairman

DR. WILLIAM JEPSON, Sioux City
DR. FRANK M. FULLER, Keokuk

DR. ARTHUR D. WOODS, State Center
DR. WALTER L. BIERRING, Des Moines, Secretary

IOWA PHYSICIANS WHO CULTIVATED OTHER FIELDS THAN THE PRACTICE OF MEDICINE.

David S. Fairchild,* M.D., F.A.C.S., Clinton

[Continued from March]

Dr. Henry Clay Bullis, of Decorah, was born in Clinton County, New York, November 14, 1830, and died in Decorah December 7, 1897. Dr. Bullis graduated from the Vermont Medical College at Woodstock in 1854 and came to Decorah the same year. At that time medical practice was somewhat limited and Dr. Bullis became interested in local civic matters. He was elected the first county superintendent of public instruction under the new law providing for such an office in 1858, and in 1863 was elected county supervisor. After two years service Dr. Bullis was elected to represent Winneshiek County in the state senate. At the end of a four year term he was re-elected. While in the senate he was made chairman of the committee on state universities and served on the Board of Regents of the State University for eighteen years.

During his second term as state senator, Dr. Bullis was elected Lieutenant Governor of Iowa on the Republican ticket. In 1876 he was appointed by President Grant a member of the Sioux Indian Commission, which was created for the purpose of purchasing the Black Hills Indian Reservation. In 1878 he was appointed Special Indian Agent, and in 1883 Special Agent United States Land Office.

Dr. Bullis was mayor of the city of Decorah, and Postmaster for four years. In 1876 he was elected President of the Iowa State Medical Society.

Notwithstanding his numerous public duties and activities, Dr. Bullis found time to attend the meetings of the State Medical Society and to maintain his interest in the medical profession.

The writer recalls his interesting addresses and discussions, and as the time had not yet arrived when the discussions assumed a technical character, the wide experience and observations of Dr. Bullis filled the mind of the young doctor with admiration.

Dr. W. S. Robertson, of Muscatine, was the son of Dr. J. M. Robertson who came to Iowa in 1835 and after a short period of practice in Burlington, located at Columbus City and for many years enjoyed a monopoly of the practice of Southeastern Iowa.

Dr. W. S. Robertson was one of the most active members of the State Medical Society. He graduated from the Jefferson Medical College in 1856 and continued practice at Columbus City with his father until 1869, when he moved to Muscatine.

Dr. Robertson was a man of great energy, of fine personal address and devoted to an unusual degree to public service. As it was in those days, a doctor of Dr. Robertson's character was sought as the representative of the people and served the public in building the state and the organization of public institutions; many of the physicians of Dr. Robertson's time served in the legislature. For many years the State Medical Society met at alternate years in January—during the session of the legislature. There was then but little feeling of prejudice against members of the regular medical profession and the advice of committees from the State Medical Society were well received. Dr. Robertson's experience in the state senate was unusually helpful in forwarding public interests that the profession felt responsible for the most important of which were the insane hospitals, the institution for feeble minded, and the State Board of Health. The public services with which Dr. Robertson was most intimately associated were the institution for the Feeble Minded at Glenwood and the State Board of Health.

Dr. Robertson in his relation to the unfortunate became impressed with the unhappy condition of

* Deceased.

feeble minded children and devoted himself to securing the passage of a bill to establish an institution for their care, which was ultimately successful, and certain buildings owned by the state at Glenwood were utilized. Dr. Robertson was the first chairman of the Board of Trustees of the Glenwood institution.

For some years there had been important discussions in various medical societies as to the necessity of a state board of health and it was through the efforts of Dr. Robertson more than any other that the first state board of health law was passed in 1880. In recognition of Dr. Robertson's activities in the passage of this bill, he was made president of the Board.

Before the outbreak of the Civil War Dr. Robertson had become connected with a military organization and rendered valuable service as a major. When the medical department of the Iowa State University was organized, Dr. Robertson was made the first professor and head of the Division of Theory and Practice of Medicine, a position he held to the time of his death.

Dr. C. C. Warden came to Wapello County July 3, 1843 and was the first physician to practice in Ottumwa. After thirteen years active practice, he engaged in the dry goods business. Dr. Warden as a physician and a business man was active in public affairs, particularly in educational matters. For a term of four years Dr. Warden was a member of the Board of Trustees of the Iowa State Agricultural College at Ames. At this time there were no board of health laws in Iowa and as the college was particularly exposed to infectious diseases, at the suggestion of Dr. Warden, the college physician was endowed with such authority as health officer as was within the jurisdiction of the Board of Trustees. This temporary appointment was confirmed by the State Board of Health as among its early activities.

In this connection two Iowa City physicians should be especially mentioned as having rendered valuable service to the state. Dr. S. M. Ballard, born in 1812, came to Iowa City in 1842, but in 1854 he abandoned the practice of medicine and engaged in farming near Audubon, Iowa. In 1875 there were a number of candidates in the field for governor. It was during the period of third-party politics in Iowa, a period of political unrest. Dr. Ballard, in the Republican convention, nominated Samuel J. Kirkwood. Kirkwood had served two terms and was not quite in accord with his party which favored Mr. Weaver. When Dr. Ballard made the nomination a delegate in-

quired by what authority the name of Governor Kirkwood had been used, and Dr. Ballard replied, "By the authority of the great Republican party of Iowa." Dr. Ballard was a large, imposing man, with a great voice, and the dramatic manner of reply carried the convention and Governor Kirkwood was nominated for a third term.

Dr. Jess Bowen, born in Virginia in 1806, came to Iowa City in 1840. On November 19, 1857, Governor James W. Grimes officially declared the Capitol of Iowa had been definitely located at Des Moines. There were no railroads in Iowa; many streams had no bridges and the river bottoms, particularly Skunk River, had a bad reputation. The moving of state property from Iowa City to Des Moines was a serious problem considering the condition of the roads. No contractor in Iowa City was willing to undertake the task. Finally Dr. Jess Bowen accepted the contract and after many days of hard labor, three large safes were safely delivered in Des Moines, but the large safe belonging to the treasurer's department, became stuck on the prairie at Four Mile Creek, about four miles from Des Moines and remained there several days and nights until the ground was frozen, when the safe was delivered in Des Moines by means of ten yoke of oxen; thus did Dr. Bowen save the property of the state of Iowa.

Dr. Jess Bowen represented Johnson County in the state senate in 1860. At the breaking out of the Civil War he was Adjutant General of the state and was afterwards made paymaster of the United States Army and was the last paymaster to be mustered out.

The first County Medical Society in Iowa was organized in Polk County, the organization meeting being held at Fort Des Moines, October 24, 1851, with Dr. A. Y. Hull of Lafayette in the chair. Seven physicians were present as charter members. Doctor Hull was elected as the first President. It is interesting to note that Dr. A. Y. Hull was co-editor with Mr. C. Bates of the Iowa Star, a weekly journal and the first newspaper published in Polk County. Doctor Hull was the father of Captain J. A. T. Hull, for many years Congressman from the Sixth District.

In the foregoing chapter we have made no special reference to the medical or surgical skill of the physicians referred to, only to men who in a particular manner participated in the building of the state and its institutions. The volumes published by the State Historical Society have dealt liberally with men in all departments of life, but very little mention has been made of mem-

bers of the medical profession. It appears to be the general feeling that the function of a doctor is to administer medicine and to mend broken bones, but if we consider the first fifty years of the history of Iowa—1820 to 1870—with its limited population, particularly in 1850 when the State Medical Society was organized, it will readily be seen that the practice of medicine had but little to offer. When Dr. John Sanford called a meeting of the Iowa medical profession, his only means of transportation for a personal canvass was by steamboat and stage coach.

The traditions of the medical profession, both from the standpoint of the profession and the general public, have been of the character of silent production, particularly so in our own country. It has not been so in Europe where members of the medical profession have had a large part in public affairs of the respective countries. It is rather difficult to understand the unwillingness of the public to grant the claims of the medical profession when it is recognized that no important activity can be carried on successfully without the aid of medical men, in industry, insurance, transportation, military campaigns, epidemics, etc. When the two volume history of the 168th Regiment of Iowa troops in the World War was published we could find the name of but one doctor mentioned, and yet we were quite sure that there were several doctors connected with the regiment and they were not hiding in the rear, and we are equally sure no Iowa regiment would go out in an active warfare without surgeons.

HEALTH EXAMINATIONS FOR KITCHEN WORKERS IN SUMMER CAMPS

It has been recommended at the annual meeting of the Camp Directors Association recently that it be required that all workers in kitchens in summer camps have a thorough examination. It was shown by study conducted by the National Safety Council that camp illnesses and accidents, while few, are more prevalent among boys than girls. The purpose of this recommendation is to eliminate communicable disease and insure better health for campers.

POSTGRADUATE COURSE IN EAR, NOSE AND THROAT

Professor Georges Portmann will give a five-week, intensive postgraduate course in ear, nose and throat surgery, at the University of Bordeaux, France, commencing July 21, 1930. This course is open to American physicians.

For information apply to Dr. L. Felderman, Mitten Building, N. W. Corner, Broad and Locust Sts., Philadelphia, Pa.

Polk County Society Hits Freak Diets

At the meeting of the Polk County Medical Society held Tuesday, February 25, the following resolution was unanimously passed:

We, the members of the Polk County Medical Society, go on record endorsing the following:

"WHEREAS, much misinformation is promulgated today on the question of diets, etc., causing the introduction in the American diet—food fads.

Very few of these fad foods can take the place of the older staple foods, good meat, dairy products, green vegetables, fruits and the better grades of bread prepared from white flour.

Any balanced diet should contain animal protein fruits, vegetables, especially the leafy vegetables, which will insure adequate vitamin and mineral salt content, digestible fat such as butterfat, and sufficient of the digestible carbohydrates to afford readily available energy.

Carbohydrates, including sugars and starches, but especially starches, furnish the American public their main fuel for energy, the quantity varying with the amount of physical activities which the individual expends. Much of the starch should be supplied by the most available and easily digestible foodstuffs, of which white flour is an excellent example.

The allegation that white bread, meat or any other staple food, when employed in mixed diet is responsible for certain grave illnesses, is not supported by scientific facts.

"THEREFORE, be it resolved that, We desire in the public interest, to place on record that in our opinion:

"1. The exaggerated claims for various fad foods are entirely unwarranted by scientific evidence or practical experience; and the advertising and other propaganda furthering their substitution for the older articles of diet should be condemned.

"2. The danger of nutritional deficiencies has been grossly exaggerated. No one food is a perfect food; but a diet consisting of dairy products (especially milk), leafy vegetables, fruits, meats and easily digested starches for heat and energy, furnishes an excess of all food factors necessary for proper growth and nutrition and resistance to disease.

"3. Any variation from normal diet should only be prescribed by a properly trained advisor after a careful study of the dietary requirements of the individual seeking advice."

The reasons advanced for such action were that much national advertising of "cure-all" foods amounts to prescribing, and those who blindly follow such advice are indulging in self-diagnosis, and that quacks are increasingly using diet as an easy avenue to medical practice.

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

A TEXT-BOOK ON ORTHOPEDIC SURGERY—By Willis C. Campbell, M. D., F. A. C. S.—Cloth, \$8.50—W. B. Saunders Company, Philadelphia and London, 1930.

TREATMENT OF SKIN DISEASES IN DETAIL—By Noxon Toomey, M. D., F. A. C. P.—Price, \$7.50—Lister Medical Press, St. Louis, 1930.

THE MEDICAL CLINICS OF NORTH AMERICA—Chicago Number, March 1930—Paper, \$12.00; Cloth, \$16.00, Net—W. B. Saunders Company, Philadelphia and London, 1930.

OBSTETRICS—GYNECOLOGY—By Joseph B. DeLee, M. D., A. M., and J. P. Greenhill, M. D., B. S., F. A. C. S., of Chicago, Illinois, and John Osborn Polak, M. D., Brooklyn, New York—Price, \$2.50—Year Book Publishers, Chicago.

RADIUM IN GENERAL PRACTICE—By A. James Larkin, B. Sc., M.D., D. N. B.—Illustrated—Paul B. Hoeber, Inc., New York. Price, \$6.00.

TRAUMA, DISEASE, COMPENSATION—By A. J. Fraser, M. D.—Price, \$6.50, Net—Philadelphia, F. A. Davis Company Publishers, 1930.

NORMAL FACTS IN DIAGNOSIS—By M. Coleman Harris, M. D. and Benjamin Finesilver, M. D.—Price, \$2.50, Net—Philadelphia, F. A. Davis Company Publishers, 1930.

RESEARCH AND MEDICAL PROGRESS AND OTHER ADDRESSES—By J. Shelton Hensley, M.D.—The C. V. Mosby Co., St. Louis, 1929—Price, \$2.00.

SYMPTOMS OF VISCERAL DISEASE—A study of the Vegetative Nervous System in its Relationship to Clinical Medicine—By Francis Marion Pottenger, A.M., M.D., etc.—Fourth Edition, The C. V. Mosby Co., St. Louis, 1930—Price, \$7.50.

UTERINE TUMORS—By Charles C. Norris, M. D.—Price \$3.00—New York and London, Harper and Brothers Publishers, 1930.

MODERN OTOTOLOGY—By Joseph Clarence Keeler, M. D., F. A. C. S.—Price, \$10.00, Net—Philadelphia, F. A. Davis Company Publishers, 1930.

CANCER OF THE BREAST—By William Crawford White, M. D., F. A. C. S.—Price, \$3.00—New York and London, Harper and Brothers Publishers, 1930.

BOOK REVIEWS

THE BABY'S FIRST TWO YEARS

By Richard M. Smith, A.B., M.D., Sc. D., Assistant Professor of Child Hygiene, Harvard Medical School and School of Public Health, Associate Physician, Children's Hospital, and Visiting Physician, Infants' Hospital, Boston—With Illustrations—Price, \$1.75—Boston and New York, Houghton Mifflin Company, The Riverside Press, Cambridge, 1930.

This volume is prepared to assist the mother in the care and training of her babies during the first two years. The author has attempted to incorporate in the volume just the information needed to secure physical and mental well-being in babies, and supply the mother with a ready reference text in their non-medical care. An entire section is devoted to the feeding of infants; a second portion is devoted to matters of care of the well infant; a third section contains recipes and charts which may be of daily use to the mother.

This volume contains a number of well-chosen illustrations, and is well indexed.

BULLETIN OF THE NATIONAL RESEARCH COUNCIL

Number 73—A Survey of the Law Concerning Dead Human Bodies—By George H. Weinmann—Issued under the Auspices of the Committee on Medicolegal Problems, National Research Council—Published by

the National Research Council of The National Academy of Sciences, Washington, D. C., 1929—Price, \$2.00.

Through a committee on medical legal problems appointed by the National Research Council, a very exhaustive survey of the laws concerning dead human bodies has just been completed. The results of this survey have been published by the National Research Council in book form.

This committee has investigated the following problems:

1. What is a dead human body? Is a stillborn child a dead human body? What is the legal status of parts of bodies?

2. Is there any property in a dead body; who are the persons primarily entitled to the custody of the body?

3. Does a person have the right to move a body whose death is properly subject to the investigation of the coroner?

4. What are the rules governing the performance of autopsies or post mortem examinations?

5. What are the various regulations concerning embalming, transportation, interment, and cremation of the dead?

6. What are the legal considerations involved in cases of exhumation other than criminal cases?

This volume will be of especial value to coroners, public health officers, undertakers, and any physician having to deal with problems of this nature.

A TEXTBOOK OF PHYSIOLOGY FOR NURSES

By William Gay Christian, M.D., Professor of Anatomy, Medical College of Virginia, and Charles C. Haskell, B.A., M.D., Professor of Physiology and Pharmacology, Medical College of Virginia—Second Edition—Price, \$2.00—St. Louis, The C. V. Mosby Company, 1929.

This small volume is prepared especially for the use of nurses during their training course. It presents in popular language the essentials of human physiology, including the special senses. The author has presupposed only the usual technical courses, such as anatomy, physics, and chemistry, in the preparation of this manual so that it admirably meets its purpose as a textbook. The author has employed the paragraphic form of presentation, with the title of each paragraph indicated in bold-face type.

The numerous well-executed illustrations have been prepared or selected with considerable care, and truly exemplify the text matter.

PRACTICAL PREVENTION OR THE TECHNIQUE OF BIRTH CONTROL

(For the Medical Profession Only)—By William J. Robinson, Ph.G., M.D., Editor of "The Critic and Guide," etc. Printed by the American Biological Society, Hoboken, N. J.

This small volume reviews the arguments for and against the use of the various preventives, outlines the requirements for the "ideal" method, and finally discusses in detail the various methods which have been used or advocated. "Taking into consideration every preventive device known . . . a properly made and properly applied preventive jelly" is most ideal.

The volume discusses not only methods and means, but also the fundamental economics of birth control by preventives. The closing paragraph of the volume is significant of the author's attitude towards this problem. "And when birth control by prevention becomes truly universal, when both families and entire races will be enabled to maintain an optimum birth rate, then many of the world's most painful and most complex problems will have been solved, or will be near solution.

The volume is illustrated.

NURSING IN EMERGENCIES

By Jacob K. Berman, A.B., M.D., F. A. C. S., Assistant in Surgery Indiana University School of Medicine, Surgical Staffs of Indianapolis City Methodist, and St. Vincent's Hospitals, etc.—With One Hundred Nine Illustrations—Price, \$2.25—St. Louis, The C. V. Mosby Company, 1929.

In the training of any nurse, consideration must be given to preparing her to meet not only routine

nursing duties, but emergencies, which may arise in the handling of any case. All nursing may become emergency nursing at any moment. At such times the nurse must work quickly and correctly. Since frequently she will have no doctor to turn to for advice, she should be properly instructed in the necessary procedures required in at least the usual emergencies.

With such thoughts in mind, the author has prepared this very concise, simply-worded, well-illustrated manual for nurses' instruction. Such conditions as first aid, drugs and their antidotes, the emergency treatment of hemorrhage, the management of shock, the treatment of contusions and wounds, bandaging, etc., have been carefully considered. Certainly many nurses engaged in institutional or private duty nursing can profit by not only reading, but having at hand this compact volume.

PEDIATRICS

The Practical Medicine Series—Edited by Isaac A. Abt, M.D., Professor of Pediatrics, Northwestern University Medical School, etc. With the Collaboration of Arthur F. Abt, M.D., Assistant in Pediatrics, Northwestern University Medical School, etc.—Series 1929—Price, \$2.25—Chicago, The Year Book Publishers, 304 South Dearborn Street.

This volume of the Practical Medicine Series has been compiled under the able editorship of Isaac A. Abt, which of itself furnishes a most unqualified recommendation of the volume. In this number will be found a review of all of the newer developments in the field of pediatrics. Dedicatory of this number is a tribute to Prof. Clemons von Pirquet prepared by Bela Shick, a fitting recognition of this great pioneer of pediatrics.

An adequate discussion of many of the newer researches in pediatrics is presented in abstract, such as: the prevention and modification of measles by means of the anti-measles diplococcus goat serum; the use of mercury salts in the treatment of edema in children; the pathogenesis of spasmophilia; the affect of deep x-ray therapy on certain forms of tuberculosis in childhood; vaccino-therapy in whooping cough, etc.

The volume is especially commended to the attention of those general practitioners where pediatrics forms a considerable amount of their practice, and to those pediatricians who, for want of time, are unable to keep in intimate touch with the voluminous literature of this specialty.

The volume is illustrated.

TEMPERANCE OR PROHIBITION

The Hearst Temperance Contest Committee—Francis J. Tietsort, Editor—220 South Street, New York, 1929.

This volume has been prepared by the W. R. Hearst Publications, summarizing the 24,000 essays sub-

mitted in response to the recent Temperance Contest sponsored by this agency. The committee has attempted to analyze the material submitted both as to plan and also as to the occupation of the essayist. Many hundred physicians submitted essays, and the tabulation of their suggestions comprises the subject matter for Chapter IV of the book. As might be expected, there was as great a divergence of opinion existing among the physicians as among the lay essayists. It appears that the physician contributors expressed or implied more anxiety regarding the present situation than the others, due, no doubt, to the health aspect of the problem. It would appear that they did not minimize the physical harm which may be done by over-indulgence in alcoholic beverages, but were almost unanimous in the thought that the poisonous chemicals used in lieu of alcohol under "Volsteadism" were far worse than the evil resulting from the usual use of good whiskey or spirituous beverages. The most popular plan advocated by the physician group was that of modification of the present laws, to the end that alcoholic beverages, the result of distillation, be prohibited except for medicinal use, but that in their medicinal use, no restrictions whatsoever be placed upon the physicians.

Since prohibition and temperance "are today occupying the center of the stage in public interests," this volume should prove very valuable in a careful analysis of the situation.

SURGICAL DIAGNOSIS

By 42 American Authors. Edited by Evarts A. Graham, M.D., Professor of Surgery, Washington University Medical School. Three Octavo volumes, totaling 2750 pages, containing 1250 illustrations, and Separate Index Volume. Philadelphia and London: W. B. Saunders Company, 1930. Cloth, \$35.00 a set. Volumes I and II are now ready. Volume III and separate index volume ready March 15, 1930.

These two volumes (Vol. III—Index in press) prepared under the editorship of Dr. Evarts A. Graham, are compilations from a large number of eminent American authors. It has been the purpose of the author to construct a book which will be helpful not only to the surgeon, but to his medical colleague as well, and for this reason, this work will be found almost as valuable by the general practitioner or interne as by the physician limiting his practice to surgery. Etiology and pathology are appropriately stressed, and many references have been made to treatment, although the author has not presented this phase of the subject in detail.

Volume I treats of such conditions as wounds, infections, post-operative complications, diseases of blood vessels, diseases of the bones, muscles, and fascia, with a special chapter devoted to the infections of the hand and a second one to the diagnosis of joint disease, various lesions of the spine, and dislocations and fractures of the extremities.

In Volume II, such subjects are discussed as gynecological diagnosis, diseases of the face, mouth,

jaw, neck, thyroid, stomach, duodenum, appendix, small intestine, and spleen. A section is devoted to the diagnosis of acute abdominal conditions.

The volumes are exceptionally well illustrated and indexed. It has not been our privilege to review so thorough and exact a work on surgical diagnosis as this one, and for this reason, it bears our unqualified recommendation.

TREATMENT IN GENERAL PRACTICE

By Harry Beckman, M.D., Professor of Pharmacology, Marquette University Medical School, Milwaukee, Wisconsin. Octavo Volume of 899 pages. Philadelphia and London, W. B. Saunders Company, 1930. Cloth, \$10.00 net.

This volume has been prepared to meet a need for authoritative information relative to the therapeutic management and medicinal treatment of diseased conditions ordinarily encountered in practice. The author has a conviction, based, no doubt, upon various sound evidences that medical training, particularly during the past ten to fifteen years, has been woefully lacking in information pertaining to the treatment of disease. Therapeutic nihilism has reached such a point in many medical schools, that the student is given little or no training except in the diagnosis of diseased conditions, assuming that treatment will be absorbed by hospital contacts, or as need may arise in personal practice. Such a treatise as this one under consideration, will go far to relieve the sad neglect accorded this branch of medical science.

The author has discussed in detail therapy of the various infectious diseases, diseases caused by flukes and worms, the allergy deficiency in metabolic diseases, and the various diseases peculiar to the individual systems of the body. The gastro-intestinal tract, the respiratory tract, the urinary system, the circulatory system, the nervous system, etc., are discussed under appropriate chapter headings. Throughout the volume, frequent references are made to the literature, and wherever possible, actual quotations are made.

The bibliography, covering thirty-two pages at the close of the book, provides references for extensive collateral reading. The volume is well indexed. Certainly among physicians who have received their medical training during the past fifteen years, this volume will fill an actual need. To those older physicians more adequately schooled in drug therapy, the volume will furnish a valuable guide for reference reading.

GETTING WELL AND STAYING WELL

A Book for Tuberculous Patients, Public Health Nurses, and Doctors—By John Potts, M.D., Ft. Worth, Texas—Introduction by J. B. McKnight, M.D., Superintendent and Medical Director, Texas State Tuberculosis Sanitarium—Second Edition—Price, \$2.00—St. Louis, The C. V. Mosby Company, 1930.

This volume has been prepared for the use of tuberculous patients and public health nurses. It will be found useful by physicians treating tuberculous patients, since the instructions offered are those ordinarily given as supplementary to medical treatment. The author does not attempt in the volume to cover medical treatment, but discusses the patient's attitude towards the establishment of a diagnosis of tuberculosis, his methods of study in understanding his own condition, the daily routine problems in sanitation necessary for proper control of the disease, evidences of improvement, and the outlook for the condition.

The opening chapter entitled "Suspecting Tuberculosis" is especially well written. Every physician who encounters tuberculosis in his practice—and what physician does not?—will profit by a careful reading of this chapter. Such a volume as this one by Dr. Potts should accompany the physician's instructions in every case of tuberculosis under treatment.

THE NORMAL DIET

By W. D. Sansum, M.S., M.D., F. A. C. P.,
Director of the Potter Metabolic Clinic, Department of Metabolism, Santa Barbara Cottage Hospital, Santa Barbara, California.
Third Revised Edition; St. Louis, The C. V. Mosby Company, 1930. Price, \$1.50.

This third revised edition corrects certain misconceptions which existed in the earlier volumes of this popular book due to insufficient detail. The present edition discusses suggested diets at greater length, and special menus illustrative of such diets have been included. The book is one of the most valuable which has come to our attention, since its brevity will invite a careful consideration by the lay reader, and its clearness will assure a good understanding of the matters discussed. This small volume, nominally priced, can be used advantageously by any physician in his daily practice.

VARICOSE VEINS

By H. O. McPheeters, M.D., F. A. C. S.,
Director of the Varicose Vein and Ulcer Clinic, Minneapolis General Hospital. Second Edition, Revised and Enlarged. Illustrated with half-tone and line engravings. Philadelphia, F. A. Davis Company, Publishers, 1930. Price, \$3.50 net.

This second edition has been required due to the prompt and hearty approval accorded the publication of the first edition of this valuable work. As is usually true with a new treatise, certain omissions or corrections have been noted which were not anticipated by the author in his first compilation. In this edition, many sections have required rewriting in order that they present the subject more lucidly. One new chapter covering the details of the Trendelenburg Test has been added.

This monograph is quite complete, and offers a satisfactory guide to any physician wishing to em-

ploy a non-surgical technique for the relief of varicose veins.

SURGICAL CLINICS OF NORTH AMERICA

(Mayo Clinic Number, Feb., 1930).
Volume 10, No. 1, 174 Pages with 82 Illustrations. Paper, \$12.00 per Clinic Year; Cloth, \$16.00 per Clinic Year. (Issued Serially, One number every other month).
W. B. Saunders Company, Philadelphia and London.

This number contains the reports of several unusual and rare conditions in the various systems. Twenty-six different members of the staff of the Mayo clinics have contributed. The most interesting articles are the ones noted in the following paragraph:

A description of ureteral transplantation for ectrophy of the bladder by Charles H. Mayo and Claude F. Dixon, unusual tumors of the gastrointestinal tract by Donald C. Balfour and Archibald H. McIndoe; a very interesting report by Henry W. Meyerding upon the treatment of Volkmann's ischemic contracture showing very good results; a review of some unusual tumors of the spinal cord by Winchell McK. Craig; a description of the technique of chemical hysterectomy using zinc chloride, by Virgil S. Counsellor.

A very interesting pathological study is presented by Bayard T. Horton entitled "A Study of the Vessels of the Extremities by the Injection of Mercury," in relation especially to thrombo-angiitis obliterans and arteriosclerosis.

This number maintains the usual high standard of the clinics.

THE NEWER KNOWLEDGE OF NUTRITION

(The Use of Foods for the Preservation of Vitality and Health)—By. E. V. McCollum, Ph. D., Sc. D., Professor of Chemical Hygiene in the School of Hygiene and Public Health, of the Johns Hopkins University, Baltimore, Md., and Nina Simmonds, Sc. D. (Hygiene), Formerly Associate Professor of Chemical Hygiene in the School of Hygiene and Public Health, of the Johns Hopkins University, Baltimore, Md. Illustrated. Fourth Edition, Rewritten. Price, \$5.00.
New York, The Macmillan Company, 1929.

This new fourth edition embodies the essential advances in nutrition, and brings this already popular treatise entirely up-to-date. The discussion embodies the recent treatment of anemias; the dietary requirements of blood regeneration; iodine therapy in the control of goiter; recent researches on the relation of diet to bone development, the calcification of fractures, and the prevention of rickets; the therapeutic use of ergosterol—the active principal of cod liver oil; the physiological effects of light therapy; the nutritional influence of the infra-red rays; the dietary management of pellegra.

The volume is well indexed and well illustrated.

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RHEUMATIC HEART DISEASE IN CHILDHOOD*

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Rheumatic heart disease is widespread, carries a high mortality rate among children and young adults and is an economic problem ranking with tuberculosis, cancer and syphilis. By glancing over the mortality statistics one can see that deaths from heart disease are more numerous than those from tuberculosis, cancer or syphilis. It is estimated that more than half of the deaths from heart disease can be attributed to rheumatic infection.

It is desired to bring to your attention the important facts regarding rheumatic infection which you have occasion to apply frequently as practitioners.

Rheumatic heart disease occurs almost exclusively in the first half of life and usually has its onset during the first fifteen years. By the end of adolescence, many of its victims have succumbed, some have recovered and the remainder live their lives more or less incapacitated. Once a person has contracted rheumatic heart disease the relief of that condition is very uncertain. Such a person may live into old age, but generally the life is shortened to an average of five years from the onset of symptoms. It is a chronic disease, usually progressive and prone to frequent recurrence of acute attacks.

The specific virus, the bacterium of rheumatic infection that will fulfill the requirements of Koch's law, has not yet been demonstrated. The bacteria apparently most closely related are streptococci but no specific strain or group has been shown to be causative. Recent investigations by Swift¹ and others indicated that victims of rheumatic infection are generally hyper-sensitive to streptococci. Whether this reaction consists in the actual invasion of the host by bacteria,

whether repeated doses of bacterial products may produce a true allergy or sensitization or whether the bacterial products liberated from a focus produce changes in the distant tissues has not been decided. As a matter of fact, we may be no closer to the etiology of rheumatic infection than we were many years ago.

THE MANIFESTATIONS OF RHEUMATIC INFECTION

The manifestations of rheumatic infection are numerous and of utmost importance in the early recognition of the disease. The important manifestations of rheumatic infection are:

1. "*Growing Pains*," *Joint Pains and Myositis*—By far the majority of cases of rheumatic infection show symptoms of either "growing pains," joint or muscle pains. Children usually state that the pain is in the thigh or calf muscles but when asked to point out the site of the pain they often place their hand on the ham string muscles behind the knee. These pains may be severe or they may be very transient. Often pains are complained of in the hip, knee, shoulder or phalangeal joints. The joint pains and stiffness are likely to come and go, but may persist for some time. There are no objective signs of swelling or fever and consequently the mothers disregard the symptoms. In this group of symptoms is also included the painful stiffness of the neck or torticollis. Torticollis occurs much less frequently than "growing" or joint pains. The importance of this symptom is brought out by the fact that fatal cases of rheumatic infection have followed torticollis.

2. *Infections of the Upper Respiratory Tract*—Upper respiratory tract infections occur in a high percentage of cases of rheumatic disease. The conditions vary greatly in intensity and even a mild sore throat may be the starting point of rheumatic infection. Clinically, it is not possible to decide whether the case is one of ordinary sore throat or whether it is the onset of a serious rheumatism.

*Read before Webster County Medical Society, February 26th, 1929.

3. *True Arthritis*—True arthritis, so called rheumatic fever or acute articular rheumatism, occurs in more than fifty per cent of all rheumatic infections. This group includes all cases of arthritis accompanied by fever and temporary changes in the joints such as swelling, redness, pain and tenderness.

4. *Cardiac Valvular Disease*—Cardiac valvular disease appears as one of the first manifestations of rheumatic infection in a large percentage of cases. This condition has in the past often been looked upon as a complication of rheumatic infection. It is *not* a complication but a manifestation of the disease. We will not here enter into the various types of valvular lesions. It is interesting to note that the appearance of valvular disease may not occur until a number of years after the original rheumatic infection and then may be accidentally noted on routine physical examination. This seems to strengthen the opinion that rheumatic infection is truly a chronic process.

5. *Carditis*—A small percentage of the cases start with a frank carditis. Carditis in severe cases is characterized by shortness of breath, precordial pain, fever and definite signs of endocarditis and pericarditis. The mild cases show a low grade fever, slight enlargement of the heart with soft systolic murmur, rapid pulse and are not accompanied by other symptoms referable to the heart. These mild cases are frequently overlooked. Either type may go on to complete recovery or may be the beginning of a chronic cardiac involvement. The cardiac involvement is of all the most important from point of view of prognosis.

6. *Chorea*—Chorea occurs in about a third of the cases of rheumatic infection. The close relation of chorea and other manifestations of rheumatism is brought out quite plainly in a case report cited by Ingerman and Wilson.²

"A girl aged eleven years seen in 1919 had a mitral regurgitation which was preceded by severe attacks of tonsillitis and rheumatic fever. From 1919 to 1920 she had attacks of tonsillitis. The tonsils were removed in 1920. In the year following she had a severe torticollis. Shortly after this a mild sore throat and then a severe carditis which was followed by a violent and rapidly fatal chorea."

7. *Rheumatic Nodules*—The rheumatic or subcutaneous nodules are present in about ten per cent of the cases and are interpreted by most observers as indicating severe rheumatic infection. The nodules occur in the deep fascia, on the tendon sheaths, in the joints and over the bones. They have been noted over most of the bony prominences and joints. The nodules are dis-

crete and vary in size from a few millimeters to a centimeter in diameter. When looked at from a certain angle they glisten and when felt seem like grains of rice under the skin. There is a tendency to recurrence of the nodules. Their presence is a pathognomonic sign of rheumatic infection.

8. *Epistaxis*—Epistaxis or nose bleeding is found about as frequently as the subcutaneous nodules, is associated with various rheumatic manifestations and is prone to recur in inactive stages of rheumatic infection.

9. *The Skin Manifestations*—Urticaria, purpura, erythemas and herpes zoster have all been observed. Whether these skin manifestations are actually rheumatic in origin or whether they are only associated conditions in subjects of rheumatic infection cannot be definitely determined.

THE IMPORTANCE OF FOCI OF INFECTION

It is felt by most observers that foci of infection play an important role in the production of rheumatic infection and heart disease. Various observers have reported conflicting conclusions in regard to the value of tonsillectomy and adenoidectomy. Kaiser³ after a study of groups of school children concluded that tonsillectomy and adenoidectomy did not reduce the incidence of rheumatism, chorea or heart disease. Ingerman and Wilson² found that recurrences of rheumatic fever were as common in groups in which tonsillectomy and adenoidectomy had been done as in the groups not subjected to operation. The same was experienced by Poynton, Peterson and Spence⁴ and other British workers. On the other hand St. Lawrence,⁵ Mackie,⁶ and McCulloch⁷ on the basis of good results believe that tonsillectomy and adenoidectomy is one of the important measures in the care of rheumatic children. The marked variation in conclusions of the various authors in regard to the value of tonsillectomy is thought by McCulloch⁷ to be due to the fact that some observers have and others have not emphasized the necessity of caring for other foci of infection. All the cases should be watched intensively from the standpoint of other focal infections. Among these are para-nasal sinus disease, tracheo-bronchial lymph-adenitis, dental infections and chronic ear and mastoid disease. Kaiser³ mentioned that the children were examined three years after tonsillectomy but he did not note that any attention had been paid to them during the interval. It is felt that the intensive follow-up care, that is, general and local hygiene, assists in decreasing the number of recurrences. It may be of interest to you to quote C. G. Kerley⁸ who after forty years' experience in caring for rheumatic children says:

"All children who complain repeatedly of muscle and joint pains, particularly on wet and so-called damp days, stand out prominently in my mind as potentially having heart disease. In such cases an immediate removal of the tonsils, regardless of their appearance, is demanded. The teeth should be passed on by a roentgenologist and there should be competent sinus attention. No one may say in looking at a tonsil that it is not diseased. The small innocent appearing buried tonsil may be badly diseased and most dangerous."

TREATMENT DURING ACUTE STAGE

When one sees a child with heart disease it is well to suppose the condition to be rheumatic in origin in the absence of other definite causes. The diagnosis is usually clear and the need for rest in bed is apparent. At the same time the special symptoms should be treated until the acute stage of infection has been passed and convalescence is established. During the acute stage the treatment consists for the most part in absolute rest in bed; salicylates for the pain brought on by joint involvement; forcing of fluids; the giving of adequate nourishment along with satisfactory elimination (not purging) and the symptomatic treatment of other factors which may appear.

FACTORS DETERMINING CONVALESCENCE

The greatest error in the treatment of rheumatic heart infection consists in letting the patient out of bed too early. It falls within the province of the doctor to safeguard the patient from infections and from strain on the heart. It will probably interest all of you to refresh your minds on the factors that determine the stage of convalescence. McCulloch⁹ has recently brought out a number of points which make it easy to determine when the child is convalescent and when he may be allowed increased activity. Many of these have been brought out previously by other observers but are well to review.

1. *Normal Temperature*—The temperature should be recorded accurately (rectal temperatures are by far the most satisfactory). The temperature should not exceed 100° F. It is known that rheumatic disease like other infections may have a wide daily variation and if this variation is more than 3° F. it should be interpreted as a febrile reaction.

2. *The Maximum Basal Pulse Rate* — The basal pulse rate should not be more than 100 a minute with the patient in a recumbent position after a short period of rest. The pulse rate following exercise should return to the previous resting basal rate within three minutes after exercise. This gives an index of the response of the child's heart to exercise. If the rate does not

quickly return to normal, it is evident that further exercise will be a strain on the heart.

3. *Weight*—Rheumatic children should be weighed periodically under constant conditions and should show progressive increase in weight before convalescence is established. The child's total weight should not be more than ten per cent below the average for height and age unless there is some explanation such as an abnormal body habitus. The weight curve often gives a warning signal several weeks before an exacerbation of infection occurs.

4. *Signs of Fatigue*—If a child is not convalescing properly, certain symptoms will follow physical activity and these can be easily noted by the attendant. The common symptoms are: first, lack of appetite; second, irritability in the late afternoon; and, third, restless or delayed sleep.

5. *Normal White Blood Count*—The total white blood count should be within normal limits and should show a normal differential count. Count should be 7,000 to 9,000 with a polymorphonuclear neutrophil count of 60 to 70%.

6. *Normal Red Blood Count*—If the red blood count is as low as 4,000,000, the child is not ready for physical activity. Transfusion or other measures should be instituted to reduce the anemia.

7. *Normal Systolic Blood Pressure*—Following certain acute infections an elevation of the systolic pressure may persist. The child should not be allowed out of bed until the pressure has returned to normal. The normal systolic pressure may vary widely with age. By two years the pressure is usually 90 millimeters of mercury and during later childhood the pressure varies from 90 to 125 millimeters of mercury.

8. *Pulse Pressure of 60 Millimeters or Less*—It is important to take the diastolic as well as the systolic pressure. Aortic insufficiency produces an increased pulse pressure. During the period of true insufficiency, that is, decompensation, this pulse pressure may run as high as 100 millimeters of mercury. After complete compensation is established the pulse pressure may still be greatly elevated above normal but in the absence of other signs of decompensation it may be disregarded in judging the child's fitness for exercise.

9. *Size of Heart*—The response to exercise will be good if the child's heart size is decreasing or has returned to normal. As long as the heart is increasing in size or remains enlarged, the child should be kept at rest.

10. *Normal Heart Mechanism*—The rhythm should be regular. Extra systoles occurring in the absence of other signs of heart disease should not be considered abnormal. Sinus arrhythmia

is common in children and should never be interpreted as heart strain.

11. *Signs of Heart Failure*—All signs of congestive heart failure should be absent, that is, dyspnoea, cough, cyanosis, edema, enlargement of the liver, pulmonary congestion, albuminuria and pulsating neck veins when the patient is sitting upright. In the presence of any of these signs patient should be kept at absolute rest.

12. *The Absence of Hemorrhages or Skin Eruptions*—When an erythema nodosum, erythema multiforme or other similar skin eruption is present, the body is still reacting to some bacterial product, probably being liberated from an active focus of infection.

13. *Absence of Subcutaneous Nodules*—As long as the rheumatic nodules persist, similar proliferative changes are going on in other body tissue and the patient should be kept at rest in bed.

14. *Absence of Activity of Focal Infection*—All signs of active focal infection should be absent before the child is allowed out of bed. The time to remove the tonsils and adenoids is determined by the condition of the patient. The most favorable time is when convalescence is well under way although there are a number of patients who make no progress toward recovery until the foci of infection are surgically treated.

15. *Normal Period of Two Weeks After Salicylates Have Been Withdrawn*—It has been shown that the giving of salicylates may result in the complete disappearance of the exudative signs of rheumatic infection. Then if the patient is allowed out of bed and the salicylates taken away, the signs and symptoms may recur. Therefore, all salicylates should be withdrawn and the patient observed over a period of at least two weeks and watched carefully for the return of symptoms or signs.

SUMMARY

1. Rheumatic heart disease is a serious, chronic, progressive disease prone to alternate periods of activity and quiescence.

2. The important manifestations of rheumatic infection are:

- (a) "Growing pains," joint pains and myositis.
- (b) Infections of the upper respiratory tract.
- (c) True arthritis.
- (d) Cardiac involvement (valvular disease and carditis.)
- (e) Chorea.
- (f) Subcutaneous Nodules.
- (g) Nose bleeding.
- (h) Skin lesions.

3. Foci of infection play an important role. These foci must be followed vigilantly and given appropriate local and general treatment. Removal of tonsils and adenoids, treatment of sinus and dental infections is of great value.

4. During the acute stage treatment consists for the most part in:

- (a) Rest in bed.
- (b) Salicylates in sufficient quantity to care for the exudative symptoms, i.e., arthritis and pain.
- (c) Forcing of fluids.
- (d) Adequate nourishing diet.
- (e) Proper elimination.
- (f) Treatment of such symptoms as may arise.

5. The most frequent and serious error in treatment of rheumatic heart disease is in allowing the patient to be up too soon. This can be avoided by using as a guide in convalescent care the following points:

- (a) Normal temperature.
- (b) Pulse rate at rest and following exercise.
- (c) Weight.
- (d) Signs of fatigue.
- (e) Normal white count and red count.
- (f) Normal systolic and pulse pressure.
- (g) Normal heart size and mechanism without signs of failure.
- (h) Absence of subcutaneous nodules or cutaneous lesions.
- (i) Quiescence of focal infection and normal period following the withdrawal of salicylates.

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SOME REMARKS ON THE TREATMENT OF DIABETES MELLITUS*

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The treatment of diabetes has made tremendous advances in recent years, particularly since the discovery of insulin in 1921 and its introduction to the profession in 1923. Even before that

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time, distinct additions to the sum of knowledge of the disease, particularly of the metabolism of protein and fat had led to better methods of management, lower mortality, and lowered incidence of diabetic accidents. Previous to the Allen era, as Joslin speaks of it, from 1914 to 1923, the essential features of treatment were the restriction of carbohydrates, and various devices, such as oatmeal days, fasting days, green days, etc. We now know that such good results as were obtained, resulted from the relative undernutrition to which the patients were more or less unconsciously subjected. Usually, however, the protein and fat foods were allowed in large amounts, with restricted carbohydrate, and acidosis and coma quickly terminated the course of treatment. Unfortunately, we still see cases "treated" by this method. Allen, about 1914, showed that excessive fat, both endogenous and exogenous, lowers carbohydrate tolerance, and hastens the advent of acidosis and coma. He introduced a definite plan for producing a continued state of undernutrition, and thereby prolonged the life of the diabetic by slightly raising his carbohydrate tolerance and making it more difficult for him to develop acidosis. In 1920, Woodyat¹ submitted a method of computing the FA:G ratio of a given diet and asserted that a ratio of 1.5:1 provides a safe ketogenic-antiketogenic balance when the protein amounts to .66-1.0 gm. per kilogram of body weight. At about the same time Newburgh and Marsh² proved that a patient could take much larger quantities of fat in proportion to the carbohydrate provided a still smaller protein allowance was given.

These and other contributions enabled many diabetics to live within their carbohydrate tolerance, but all these dietetic adjustments represent a desperate effort to get around the cardinal feature of diabetes; namely, the fact that the endogenous insulin production of the diabetic is insufficient for his needs.

Thus, when insulin made its appearance, the practice of giving the diabetic an *abnormal* diet was so firmly established by necessity, that we have not yet recovered from it. We now have exogenous insulin to supplement the diabetic's insufficient endogenous supply, but the use of the pre-insulin device, the low protein, low carbohydrate, high fat diet is still prevalent.

Other factors besides habit help to make us continue this error. The typical diabetic patient prefers to avoid the use of insulin if possible, because of the disagreeable features of taking it hypodermically. We learned ten years ago how to treat most diabetics without insulin; therefore, we accommodate him by falling back upon our

old friend the high-fat diet. Our minds were concerned so long with the aim of freeing the urine from sugar, that we assume that any method by which the urine can be kept sugar-free is as good for the patient as any other. Further, since we can still treat a large number of patients with high-fat diets and no insulin, we also give the insulin cases high-fat diets so that we can give the smallest possible amount of insulin. Thus, we have allowed tradition and the pressure brought to bear by the patient to obscure the possibility that insulin offers of making the diabetic the approximate equivalent of a normal individual. Perhaps in no other disease do we permit ourselves to be so influenced by the patient's wishes as in diabetes. We do not withhold the arsphenamines, mercury, bismuth or digitalis because the patient reminds us of their toxicity; neither do we withhold surgery because the anesthetic is unpleasant and recovery painful. They are insisted upon because they are for the best interests of the patient. Similarly, if it can be shown that diabetics, with the possible exception of elderly, mild cases, can live longer, more happily and more usefully, and be less subject to the accidents and complications of diabetes, by the use of diets approaching the normal type, and the use of insulin, it is our duty and privilege to convince them of the wisdom of this course, and urge them to follow it, as firmly as we would urge a patient with gallstones to have his gall bladder removed. However, since it has taken nearly a generation to make cholecystectomy a common operation, it will no doubt be years before the diabetic is treated merely as a person who needs more insulin than he himself is capable of producing, although that is essentially what he is. It is difficult for the individual physician to introduce any new method when all about him others are adhering to the old. I have been only occasionally successful in persuading patients to go on high carbohydrate diets and sufficient insulin, and it is my failure in this effort that prompts me to urge a wider use of this type of management. It will no doubt be the method of the future, but I believe that it should be the method of the present.

Sansum and his associates at Santa Barbara were the first to sponsor the high carbohydrate diet.³ They adopted diets very high in carbohydrate, perhaps higher than will ultimately be used, but this choice may have been for the purpose of demonstrating the soundness of the method. There is little to be said concerning the advantages of the high carbohydrate diet beyond what is presented in their original publication. They pointed out the wide margin of safety from acidosis. An acute infection or violation of the

diet by the patient, leading to loss of carbohydrate tolerance, does not immediately raise the FA:G ratio to a point which permits acidosis to develop, as in the case of a high fat diet. The patient feels better, can do more work, and loses his craving for carbohydrates. Stress is properly laid on the practice of slightly overdosing the patient with insulin, thereby maintaining a low normal blood sugar level which relieves pancreatic strain and increases carbohydrate tolerance. This feature of treatment is not peculiar to the use of the high carbohydrate diet, but can be used with any other type, although it has seemed to me that in the small number of cases in which I have used a high carbohydrate diet, one can overdose with insulin with less likelihood of hypoglycemic reactions than on low carbohydrate diets.

I have not seen any strong arguments against the use of the Sansum type of diet. Joslin says that it may permit the development of a relative degree of obesity and that giving so much carbohydrate encourages the patient to become careless in the use of high carbohydrate foods. Both of these undesirable results can accompany any type of diet if the patient is not conscientious. He can get fat by exceeding one diet as well as another; he can and does more frequently on a high fat than on a high carbohydrate diet, eat high carbohydrate foods beyond his allowance. Obesity can be avoided by giving fewer calories, and the patient on the high carbohydrate diet is better satisfied with it than with the high fat type and therefore is less likely to break over.

There is justification for this type of diet other than the considerations mentioned above. Joslin,⁴ in stating his Diabetic Creed says, "The nearer the proportions of carbohydrate, protein, and fat in the diabetic diet conform to those of the normal diet, always seeking to avoid glycosuria and hyperglycemia, the better it will be for the patient," and that "*reversal of the diet*, namely high-fat and low-carbohydrate . . . is dangerous, both in principle and in practice, and unless accompanied by a minimum protein intake frequently ends in coma." It should be stated, however, that Joslin has never used diets as high in carbohydrate as those of Sansum.

Richardson,⁵ at the University of Pennsylvania, placed sixty-one patients on low-carbohydrate, high-fat diets, giving one gm. protein per kilogram of body weight, twice as much fat as carbohydrate, and only enough total calories to maintain strength and weight. This is good orthodox diabetic practice. After several weeks or months of observation, he reversed the amounts of carbohydrate and fat, so that the patients received two gms. of carbohydrate to one of fat. The change

was made abruptly and the insulin ration was unchanged. The reversal of the amounts of fat and carbohydrate did not raise the blood sugar level and no more insulin was required than on the former diet. The patients did not lose weight as might be expected from the loss in total calories. In fact, several patients gained in weight after having been stationary on the high-fat diet with more calories. This may be explained by their inability to absorb all the fat previously given. Richardson states that the patients uniformly felt better and had less craving for carbohydrate on the second diets. The only cases in whom these results were not obtained, were in a few patients who were markedly overweight; these exceptions are explainable in that their metabolism was complicated by excessive body fat.

The Sansum diets have seemed to me to be unnecessarily high in carbohydrate, that is, even higher than in the average normal person. It would seem sufficient, in order to gain all the advantages of high carbohydrate diet to give about two grams of carbohydrate to one of fat.

A case observed three years ago is interesting in that it illustrates in an exaggerated degree, some points mentioned above. It is briefly reported here, because it is rather unique, due to marked insulin overdosage through an error in measurement.

Case I. Mrs. M. H. T., aet. 59 years, had had diabetes for one year when seen on March 9, 1926. She had restricted carbohydrates to some extent, but had not followed any fixed diet. During the twenty-four hours previous to entering the hospital, she voided approximately 4500 ccs. of urine, the sugar percentage of which was roughly 5. Her blood sugar was .220% the morning after admission. She had entered the hospital after much argument, and on condition that all possible time would be saved in getting her established on her diet. She had no acidosis, and was placed at once on Sansum's diet No. 3, which consists of P. 69, F. 71, C. 146, and an attempt made to get her blood sugar normal by insulin. She was sugar free on the 14th, her blood sugar gradually fell to .125% on the 15th. On the 16th, one week after admission, she refused to stay longer because of homesickness, and was discharged under protest. She was given the same diet. On the last day in the hospital she received 90 units of insulin. However, in order to allow for a reasonable rise in tolerance, she was told to take 80 units at home. She had learned to weigh her food, and to take her insulin. On discharge, she was given a supply of U 40 insulin and the method of measuring on the U 20 scale explained to her, but, as it proved later, she failed to understand this thoroughly. She was at home for one week, having several insulin reactions daily, and taking just enough

extra carbohydrate to relieve her symptoms. After several long distance telephone conversations with the patient's husband, who is a dentist, and who was measuring the insulin, it was learned that he had been giving U 40 insulin as if it were U 20. She had therefore received 160 units daily for two days, then when advised to reduce the dose to 60 units, had given 120; finally after giving 80 units instead of 40 as ordered, she continued to have several hypoglycemic reactions, and returned to the hospital on March 23rd, for three days and was discharged with a normal blood sugar (.110%), with the same diet and 50 units of insulin. On April 20th, twenty-five days later, she returned and asked to be taken off insulin. She had gradually decreased her insulin, because of repeated slight reactions, to 15 units, keeping the diet constant. She was moving to California, going by car, and wished to be relieved of taking insulin. She was then placed on a diet of P. 62, F. 94, C. 107 without insulin. A year later she wrote that she was still sugar-free and had had several normal blood sugar determinations. I saw her on February 12th, 1929, when she said that she had been eating indiscriminately for two years, and had only occasionally showed glycosuria. Her weight appeared to be about the same as three years ago.

I would not care intentionally to overdose a diabetic on any type of diet as was done accidentally in this case. However, several points are suggested by her progress. From March 16th to April 20th, 1926, she reduced her insulin requirement 75 units. If we assume that a unit of insulin metabolizes 1.5 grams of carbohydrate, then her tolerance increased more than 100 grams in thirty-five days. We should be foolhardy deliberately to attempt to produce such prolonged and marked hypoglycemia, and too much cannot properly be inferred from one case, but this case does suggest that relative or actual hypoglycemia permits increase in carbohydrate tolerance. An unsatisfactory feature of this case is that her original hospital stay was too short to stabilize her diet, insulin and blood sugar levels, before the heroic overdosage was applied. During the week she was at home between hospital admissions, she took very much more carbohydrate than allowed by her diet (146 gm.) since she took sugar, candy and orange juice several times during both day and night to relieve hypoglycemic symptoms. I wonder, but do not know, what the result would have been had she been on a high-fat diet.

One other case is selected for brief report, because it is typical of many cases with surgical complications.

Case II. Mrs. A. N., a Bohemian woman, aet. 66 years, whose history could not be obtained satisfactorily because she spoke no English, had had diabetes for several years, without control. She en-

tered the hospital August 14, 1926, because of multiple abscesses and gangrene of the right foot. She was emaciated, and in a precomatose state. Her body tissues were extremely flabby and dehydrated. Her liver was felt as a soft thin flabby mass two fingers' breadths below the costal margin. She was placed on a diet of oatmeal 90 gms., skim milk 300 ccs., and orange juice 1000 ccs., and 10 units of insulin at two-hourly intervals until the urine was acetone free and nearly sugar free. During the first twenty-four hours 80 units were required. She was then given P. 48, F. 49, C. 95, and 35 units of insulin. This was gradually increased during the next five days to 80 units when she was sugar free. The next morning, August 20th, in preparation for amputation, she was given 25 units of insulin followed by 250 ccs. of orange juice and water ad libitum until two hours before operation. The leg was amputated under gas anesthesia and the patient resumed her former diet and insulin dosage that noon. She did not miss a meal or dose of insulin and showed no sugar or acetone in the urine following operation. The stump healed by first intention. Between August 20th and September 4th the insulin was reduced from 90 to 10 units. The patient had repeated slight and several severe insulin reactions during this period. On September 13th, a nurse mistook backache due to sitting up in a chair for evidence of insulin shock and gave orange juice and sugar. The stump had been entirely healed, but the next day, the blood sugar was .315% and a gangrenous area 2x4 centimeters appeared at one angle of the scar. The blood sugar was brought to normal as quickly as possible by temporary increase in insulin dosage; the necrotic tissue sloughed out and the wound then healed by granulation without difficulty. She was discharged on September 16th, 1926. Although this patient has since abandoned her diet and insulin, she is still alive.

This case illustrates the safety of major surgical procedures in the absence of hyperglycemia and acidosis and with preoperative fortification by carbohydrate and insulin. As in Case I, there was a marked reduction in insulin requirement on a fixed diet, in this case a reduction of 80 units in fifteen days, or in terms of carbohydrate tolerance, assuming a 1:1.5 insulin-carbohydrate ratio, an increase of 120 grams.

It is regrettable that neither of these cases have adhered to their diets. The tendency of diabetics to go back to their old habits must be offset by education by all physicians in their contact with these patients. It is difficult for the conscientious physician to keep diabetics under control if their friends tell them of other physicians who treat their patients with oral preparations of pancreas, and do not require them to weigh or measure their food. Any physician who does not have the time, inclination or knowledge necessary for the

proper care of a diabetic should refer him to another who does.

In conclusion, the advantages of diabetic diets high in carbohydrate and low in fat have been discussed. It is urged that this type of diet supplant the low carbohydrate-high fat diets now in common use; that more diabetics be persuaded to take insulin; that enough insulin be taken to keep the blood sugar in the lower range of normal; it is suggested that hypoglycemic reactions may act as a definite intensive stimulus to the increase of carbohydrate tolerance.

FOOT-NOTE. Since completing this paper Dr. R. B. Gibson at the University of Iowa has reported in the Journal of Laboratory and Clinical Medicine of April, 1929, three cases in which high carbohydrate diets and increased insulin dosages have been used intermittently and which have consequently shown a marked increase in carbohydrate tolerance. In this work, however, the increase in tolerance was ascribed to the stimulating effect of increased carbohydrate intake on the insulin-producing tissue of the pancreas, irrespective of the blood sugar level.

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Discussion

Dr. C. W. Ellyson, Waterloo—Dr. Wolverton's paper on the treatment of diabetes is one of the most rational discussions on the standardized treatment of diabetes I have had the pleasure of hearing.

Recently I have reviewed literature covering the past five years particularly in its relation to pregnancy complicating true diabetes and I have visited a few laboratories and diabetic wards and have learned that the general trend is toward the more liberal use of carbohydrates along with the more liberal use of insulin in aiding in its assimilation and combustion.

The diabetic patient and the physician can no more expect the most efficient digestion of the carbohydrates, hydrocarbons and proteins without the proper amount of pancreatic secretion or the proper amount of insulin being added at the proper time and place, than can the scientific mechanical engineer expect the most efficient combustion of gas, oil or coal in the modern engine or heating plant without the proper amount of air being added at the proper time and place.

To get the best results requires the intelligent cooperation of the two most interested parties—the *diabetic* and his *physician*.

The average diabetic and the average physician who treats him must show more intelligence in their activities than they have during the past five years if they expect to attain even average results.

The *diabetic* to save himself much unnecessary expense and trouble must—(1) Choose a physician who has the time to give him intelligent, general, dietetic and laboratory care whether within or out-

side of the hospital. (2) He must stick to his *schedule*, paying little attention to that of his neighbor or his neighbor's physician or friends. (3) He must make an intelligent study of his food requirement and his sugar tolerance and the manner in which he can handle same and not hesitate at the use of insulin in whatever way and amount is necessary for him to live a *comfortable normal* life.

The *physician* who treats diabetes must also show more intelligence than in the past by: (1) Securing and maintaining the absolute confidence of his patient. (2) By using the necessary standardized equipment in checking his results from a laboratory standpoint whether within or outside the hospital. (3) By leaving the experimentation with other than standardized lines of treatment to efficient experimental laboratories and schools and cut out using and advising unstandardized commercial products put on the market to sell or to be used by advertising quacks.

I shall not go into detail in enumerating personal experiences with diabetic coma and death resulting from violation of the above principles and the following of false lines of treatment by quacks both within and outside of the profession, as each of you can enumerate volumes along this line.

I do believe the law recently passed empowering the State Health Department to check up more closely those treating the sick, can get in some very valuable work in cleaning up those irregular and unlicensed practitioners treating diabetes with absolutely inert oral preparations.

I do not wish to imply that all oral preparations are inert. Synthalin and similar preparations may be of value later but for the present leave them to the efficient technical or research laboratories for more thorough investigation.

In closing I wish to add another class of diabetes requiring more thorough study of the general practitioner and especially the obstetrician and gynecologist—that is the pregnant diabetic. The pregnant diabetic has had less attention than the surgical diabetic. Only about 5% of diabetic women become pregnant.

The pregnant diabetic demands much care as there is, or was, a 30% mortality either during labor or immediately post partum and an additional 21% mortality within 2½ years following labor.

The intrauterine mortality for the child has been 50% and others give 60% infant mortality from true diabetes before the use of insulin.

DeLee advises against too much optimism in insulin therapy in pregnant diabetics and requests the report of all cases so treated. Few cases have been reported. The records of Allen, Sherrill and Campbell and Maclead show the development of menstruation after insulin therapy and never have they had this development in true diabetics without insulin. Strause reported four true diabetics complicated by pregnancy in the May, 1926 Clinics of

North America but used insulin in only one. Wilder and Parsons in November, 1928 Colorado Medicine report seven cases.

The summary of these reports here and abroad would indicate: That the administration of insulin has entirely altered the outlook for the better in cases of pregnancy complicated by diabetes, there is no reason for terminating pregnancy and there is little reason why the diabetic mother shall not give birth to a live baby.

Following DeLee's suggestion I wish to report briefly one interesting case of true diabetes complicated by pregnancy:—

Mrs. S., age 38—married 15 years never pregnant and thought it impossible, referred to me five weeks after feeling movements, known to be a true diabetic for at least four years—B. P. 150/85—Blood sugar 190 mg. urine contained albumen acetone and 4 plus sugar. All urinary symptoms cleared up on a diabetic diet fairly liberal in sugar and blood sugar reduced to 80 to 100 mg. with 7 units insulin daily and this was discontinued about six weeks before birth of healthy child, and remained at 109 mg.

The most interesting part of this history is that she seemed to develop a greater sugar tolerance upon the decrease of her toxemia of pregnancy aided by the insulin and was able to go on a more liberal diet the last month of pregnancy and remained so during the puerperum and again became pregnant after about four months but miscarried.

The child at 18 months remains healthy with a slightly increased blood sugar.

Dr. Edwin B. Winnett, Des Moines—I want to compliment the essayist and also Dr. Ellyson on his discussion, and especially do I wish to commend the attitude which they take regarding giving relief in these cases by proper attention to detail, as to diet and insulin.

It seems to me a moderate carbohydrate diet with a moderate fat intake with one gram of protein per kilogram body weight is acceptable to most diabetics, but I do not believe the severe or moderately severe diabetics can take a high carbohydrate diet because invariably they get into trouble. The average individual will eat freely of carbohydrates, but if a certain class of diabetics do this, trying to burn it up with insulin, they soon will get into trouble. Therefore, we must individualize every diabetic in our care.

If you fatten the diabetic you are then in the danger zone, because the fat diabetic is the dangerous patient.

If the diabetic should develop any one of the common infections they usually develop temperature. They do not eat their usual allowance of carbohydrates, proteins, and fats. When they do not eat they usually omit the insulin and quickly develop diabetic coma. Especially is this true if the patient is obese. Fattening the diabetic has been the cause

of more cases of coma than I have seen from any other cause.

Formerly the high death rate was with children. Most children with diabetes would be dead in a year or two from the onset of disease. Since the introduction of insulin the child lives long while the older person dies with the complications of diabetes. Usually that complication is arterio-sclerosis or some one of its manifestations.

I am glad we have heard such a paper, because its discussion of the subject will quicken in the minds of many physicians over the state who see diabetes, the necessity of taking care of it.

Dr. Wolverton (closing)—I wish to thank Dr. Ellyson and Dr. Winnett for their discussions. Dr. Winnett perhaps misunderstood me because he seemed to believe I was proposing that a diabetic should be given a large amount of food and should become fat. Nothing could be farther from my thought. I referred to the fact that one advance made in the treatment of diabetes previous to the advent of insulin had as its essential feature the restriction of food intake, in the belief that the patient should be five or ten per cent below standard weight for height, weight and sex. Sansum probably gives a higher carbohydrate diet than is necessary. If in the case of patients on that type of diet they eat too much carbohydrates, then take additional insulin and thereby become fat, the mistake made is the fault of the individual diabetic and not due to the type of management. My experience in giving high carbohydrate diet has been limited, because it is difficult to convince a diabetic that more insulin should be taken and that method of treatment employed. But so far as I have been able to observe the effect of treatment of these cases, we are best able to obtain the advantages of the high carbohydrate diet by giving about two grams of carbohydrate and one gram of fat. The patients are then not tempted when they see some one else eat an unlimited amount of carbohydrates, they do not have the craving for carbohydrates that others have.

Good training and the conscientious cooperation of the patient are absolutely necessary on any type of diet. Whether he is on the low carbohydrate diet of Newburgh and Marsh, or the high carbohydrate diets that Sansum uses, if the diabetic will not cooperate with the physician in keeping his blood sugar at the proper level and taking care of his body generally, avoiding infections of all kinds both systemic and local, he is going to get into trouble. If he cooperates with his physician I believe he will do better with high carbohydrate and low fat diet. If a patient on a low carbohydrate and high fat diet gets an infection, he immediately loses carbohydrate tolerance. The fatty acid-glucose ratio of the food he has then actually metabolized is raised to a dangerous level and acidosis is imminent unless the insulin and carbohydrate are increased.

UNITY AND PROGRESS IN MEDICAL EDUCATION*

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It may be a matter of pained surprise to some of us here that a discussion on unity in relation to medical education in this State should be opened in what appears to be the face of rather thorough-going disunity covering a period of some years. If an apology for thus taking the bull by the horns be required, I can only say that during the past year it has been my privilege to talk to physicians all over the State, individually and collectively, about our mutual problems and difficulties, and the conviction has been forced upon me that unless some common ground of understanding and a common plan of action can be found, no sure and lasting progress can be made. It becomes peculiarly my duty, therefore, to outline what I believe to be the essential situation before us, and to suggest lines along which, in my opinion, we may proceed to a clear apprehension of each other's needs and the formulation of a mutually acceptable policy.

Certain steps have already been hopefully taken. During the summer and autumn of 1928, there were numerous meetings between groups representing this Society and the College of Medicine. The officers and legislative committee responded cheerfully to frequent requests to meet and debate these baffling problems. Many points were agreed upon after long and frank discussion: that we were unable to dissolve all of the obstacles was due perhaps not so much to lack of goodwill or cooperation in either of the groups as it was to a lack of complete information on the one hand, and some uncertainty as to the will of the Society on the other.

It would be ungracious indeed if I did not at this point acknowledge gratefully the patience, forbearance and cheerfulness with which Dr. Burcham discharged a difficult and delicate responsibility. I am indebted to him for many helpful courtesies, even though we differed widely in some of our conclusions: I might well in my admiration say of him what was chronicled by a biographer of one of our early presidents, "It has been said of the temperament of John Quincy Adams that the temptation to perform his duty was always strong with him—and if the duty was a particularly disagreeable one, the temptation became ungovernable."

To all those who in official capacity under the

Society have helped to clarify our understanding thus far, I give the thanks of the College of Medicine.

Certain points of friction, I have said, were discussed and adjusted. These related first to measures designed to free the medical service acts (the Perkins and Haskell-Klaus laws) from abuse. Let me say at once that the College is as deeply interested in seeing these laws carefully interpreted and justly controlled as any physician or group of physicians could be: the law gives the hospital no jurisdiction as to whether or not an indigent patient can really afford to pay—when the judge has signed the commitment we must admit the patient. On the other hand it is the function of the Hospital, within the limitations of the statute to prepare the forms by which the patient's status is determined, and it is in this direction that a good deal of progress has been made latterly, in consultation with the officers of the Society. The commitment has been made much more stringent than formerly by a requirement that a property statement be made under oath, and that every commitment should automatically expire at the end of a two year period. An expression of opinion from the examining physician as to the prospective patient's incapacity or otherwise to pay has been added to the medical certification. The Hospital is ready to furnish to the secretaries of all county societies a monthly record of all State patients committed from the county concerned, and by whom certified. These are some of the changes made. The Legislative Committee asked that they be incorporated into the basic statute, but the Board of Education was reluctant to do so at once, for two reasons: in the first place, it seemed probable that further exploration would bring to light other desirable changes and additions which should eventually be made a part of the law, and in the second place, it was felt unwise to seek revision of the law until and unless a conclusive comprehensive and reciprocally acceptable policy has been determined. In the meantime the measures suggested in conference with the officers and committees of the Society were adopted as administrative procedures by the Board and put into use. I need scarcely remind you that the administrative regulations of the Board have precisely the force of law as far as the University Hospitals are concerned.

Other matters which had been critical issues for some time past were freely discussed and a consensus of agreement was found. These were concerned with the relation of the staff and service of the University Hospitals to the profession of the State. They answer pertinent questions: is the new hospital proportionate in size and ca-

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capacity to the teaching obligations of the University, or is it merely a great State-subsidized enterprise designed to compete with the profession of Iowa: are the facilities for private and pay patients properly limited, both now and as a matter of future policy: is the present system of part-time and full-time teachers a menace to private medical enterprise: is the accounting so handled as to make certain that there are no duplicate charges to the State? These and similar questions were asked and answered in the course of our many meetings, and I think the record will show that we arrived at a satisfactory understanding on all of them, save one.

There was this item, however, on which there was failure to agree,—the method of reimbursement for the care of indigent patients. I gladly take advantage of this opportunity to explain why the Board of Education and the authorities of the College felt that a change to a county basis of payment for indigent cases would be disastrous. In the first place, this is primarily a question of economics and tax allocation: it affects medical education in an indirect but very important way, and private practice not at all. The University Hospitals are vitally a part of the State's system of higher education, and are completely integrated with it: the same method of finance is properly applicable to this enterprise, unless it should in some way conflict directly with the interests and welfare of the medical profession in which case a change should be made.

Does it so conflict? I think not. If through united agreement we can put every proper safeguard into action, the possible abuses of the law will be minimized. The Hospital cannot eradicate them without the cooperation of the physicians who examine and recommend the indigents to the Court, but the College will do everything in its power to forward this cooperation.

One realizes that occasionally it takes a great deal of courage to report the physician's belief that an applicant can afford to pay: but if embarrassment on that score arises it can be avoided by a private communication to the county attorney or clerk. The operations of the medical service law should not affect adversely the interests of practicing physicians. It is recognized that indigents requiring hospitalization might be cared for directly by counties within their own borders, and that a fee to private practitioners might accrue from it: but the returns would be small, and in any case the hypothetical slight loss is the price to be paid for the maintenance of a successful and effective medical teaching center in this State. If the State does not need a medical college, the argument falls to the ground, but it would be

easy, I feel sure, to show that there is such a need.

The final point in our anxiety toward legislation of the type recently introduced by Mr. Wamstad is the experience of other States similarly situated. In none of those which support a State College of Medicine has the County method of reimbursement for the care of indigent patients been satisfactory from the standpoint of providing a steady and ample supply of teaching material. Many of the medical schools in other states are located in large cities, and the deficiency of state cases can be supplemented by drawing on local hospitals. In Michigan, where conditions parallel those in Iowa, the system of county reimbursement has proven apparently unsatisfactory to the State Society.

A unity of plan and purpose, as between the State Medical Society and the College of Medicine, is attainable, in my opinion, if three basic conditions can be fulfilled.

First, we must know our ground thoroughly, and be in a position to discover and weigh the essential factors which are at issue. This presupposes that we have full information, and enough time in which to analyze it.

Second, a common foundational program should be formulated, which would conserve enlightened self interest to all concerned.

Third, a frank and friendly relationship must be developed.

A unified program for progress might properly be defined as the welding of concerted effort in the fields of practice (curative medicine as personal enterprise) preventive medicine and public health, and the training of physicians and nurses. In each of these varying professional divisions independent progressive moves have been made, or are in the making, but thus far there has been little inter-relationship. The Society has been increasingly concerned with favoring wise legislation for safe-guarding physicians and the public; it has also given support and encouragement to the work of the State Department of Health; it has in many ways helpfully assisted in the development of medical education. But it would appear that still more can be done, if the way is cleared, to attain the ideals toward which we look.

I venture to offer specific suggestions and a means to that end:

(1) So far as the relation of the State Medical Society and the College of Medicine in the educational side of medicine is concerned;

(a) More extensive and accurate knowledge is needed of the practical work-

ings of the present system of medical service acts, particularly as they concern varying areas of the State (remote counties, agricultural districts, urban centers), and their relation to welfare agencies, both official and voluntary.

- (b) A clear-cut picture is required of the present system of hospitalizing indigents, and cost and private cases in the University institutions.
- (c) A detailed comparative study of similar systems in other States should be presented
- (d) And recommendations arising out of this collected and analyzed material should be submitted to the Society as a foundational policy,—conservative, protective, cooperative.

(2) The relationship of public health effort to medical education and to organized medicine should not be dealt with lightly. We have had a picture in conferences held during the autumn and winter of the bewildering multiplicity of organizations concerned with one phase or another of public health and welfare, often unrelated to each other, to the State Department of Health or to the medical profession—duplicating activities and working at cross purposes. This is not said in criticism of any movement for public welfare; we must recognize that there is a deep undercurrent of earnest interest among enlightened folk everywhere in projects that contribute to physical wellbeing and effectiveness, and particularly as it includes children the concern is an irresistible one. The conventional reserve of the profession about taking initiative in these things has not lessened their momentum—it has resulted in well-nigh excluding physicians from enterprises in which they should be taking inspirational leadership.

An important step toward unity and progress in this vital field of public health would be to have a survey made by a thoroughly qualified disinterested expert, of all phases of such work being done in this State. This could be carried out under the auspices of the Governor; it could be accomplished without incurring the criticism of partisan bias, and it would serve as a guide for the objectives sought by the State Society, the State Department of Health, the wide group of non-official social welfare organizations, and the University. It may not be amiss in this connection to say that a new policy has been adopted by the Extension Department of the University with respect to its program in maternal and infant welfare. The program hitherto carried on has been suspended, without prejudice, and a new

plan is being formulated which looks toward integrating all future activities with the College of Medicine, and bringing the State Medical Society and Department of Health into an intimate consultative connection with the work.

This new step, together with the other items mentioned, will make clear, I hope, the fact that the College of Medicine faces hopefully and expectantly the prospect of relating more fully its educational and medical service program to the activities and interests of the State Medical Society and the State health agencies. The College of Medicine has no desire to stand apart from these great organizations, either in its policies or its acts; its vigor and success in the long run will ebb or flow according to the completeness with which this smooth and effective interworking is attained. If the suggestions offered seem to indicate a selfish interest, let me say at once that there is no enduring comity between organizations—or between nations, for that matter—which is not based upon an ethical and proper self-concern which seeks the highest benefits for each member, and seeks advantages only when they may be had without injury to others. I feel that the College has much to gain from a closer association with these organized forces of medicine and that they in turn can be served helpfully by the College. We are pledged therefore to interwork with them upon such a basis of a clear knowledge of the conditions and problems which confront us all, with a determination to solve our common perplexities through a sympathetic consideration of each others difficulties, and in the ultimate interest of the public good.

It would be too much to expect that a closer affiliation can be attained without occasional misunderstanding or friction, but if the premises upon which we work together are basically righteous, then time, patience and forbearance will clear the way.

Discussion

Dr. Walter L. Bierring, Des Moines—It is interesting and unique to have a stranger come in our midst and analyze for us our educational problems and then present his case with the clearness of an experienced advocate, leaving but little for another to add. In giving this important matter our earnest consideration, we should bear in mind that medical education in Iowa is now centered in one institution, that by equipment and the personnel of its staff measures up well with the best institutions of its kind. If its usefulness and permanency are to be assured, then its problems must become our problems. We recognize that a State University Medical School has three distinct functions: First, it must qualify so as to properly carry out the teach-

ing methods for which it is established; second, it must conserve a close relationship with the medical profession and the progress of medicine in Iowa, and lastly through investigation and research it must maintain its place and contact with the general field of scientific medicine.

It needs no words of mine to impress upon you the necessity for cooperation between organized medicine and the medical school, and the time has come when our State Medical Society must assume the responsibility of supervising the medical education of this state. It is in keeping with the wisdom of Dr. Burcham that he introduced in the House of Delegates this morning the resolution to have a standing committee established on medical education and hospitals, which provision is to be incorporated in the revised Constitution and By-Laws. With this controlling committee carefully studying the needs of medical education in Iowa; the medical school will become the child of the profession, expressive of the highest ideals of enlightened practice within the state. This is clearly our opportunity as well as our responsibility and duty to the generations to come, to preserve and maintain a medical school which will be the index of scientific medicine and the best standards of medical practice in our state. Accepting the Dean as the spokesman of the medical school, working in conjunction with a well organized committee representing the State Society, there should not be any difficulty in ironing out the various points in question, and assure that unity which is so essential if medical education and practice are to advance in this state.

Dr. Evan S. Evans, Grinnell—With reference to the allotment of expense to the county in the administration of the Haskell-Klaus and Perkins laws, Doctor Houghton might have made it a little clearer. We are paying taxes for the support of the State University and the taxes are not made according to the proportion of students coming from a county but are based upon the total expenses of the University in relation to the entire state, and the taxes paid by any county for the support of the University do not depend upon the number of students from that county in the University but upon the amount of taxable wealth in the county.

The University requires certain supplies and among these supplies are clinical material which are derived from the needy of the entire state, and the state might be expected to pay the expense of supplying this material irrespective of where it has come from. Of course in this respect there is opportunity for the county authorities near the University to supply more of this material—more of the clinical patients—than those in distant parts and some temptation for the authorities in distant parts of the state to burden the state with large traveling bills for patients who require only minor assistance, medically speaking. However, no patient gets to the University unless some doctor signs the paper be-

fore he goes and all that is necessary to prevent such abuses is for the doctors to refuse to certify these papers. Some of the kicks made in that regard are due to the fault of our own members and we have no real ground to find fault with the University in this connection.

Concerning the competition that the men at the State University furnish for the rest of us I might say that while of course I live out in the brush and do not mind a little competition of that kind I realize that the state is pretty well filled with specialists who might have their practice cut into seriously by having their patients go to Iowa City. However, a certain number of our patients go to Iowa City, Rochester, Davenport and Dubuque or some other seaport in spite of us and of course it seems entirely right for them to go wherever they wish.

Doctor Houghton touched on the point of Child Welfare. In our county we have had two or three Child Welfare clinics put on under the auspices of the Shepard-Towner Act. They did not seem to do so well and we have come to feel that the Shepard-Towner Bill is chiefly to furnish employment for doctors who want to travel around. They certainly did not do much in our town. They get a very superficial history, make a very superficial examination, put out a few platitudinous remarks to the mothers and expectant mothers, are taken to dinner by the Mayor, or the president of the Women's Club and altogether enjoy a pleasant time. The babies derive no benefit, they disarrange the work of the local doctors who are expected to attend the clinics and except for a little soft soap for the Social Service League, the Woman's Club and the occasional doctor who gives up his time to it, accomplish nothing. We have been glad to note the proposed repeal of the Shepard-Towner Bill by Congress and hope a similar bill will not again be passed.

In Iowa the Legislature has passed a bill appropriating money for Child Welfare work and assigned it to the State University. That is all right with me. The University can use the money as they see fit and I believe that the change which Doctor Houghton indicates has been made—that of putting the Child Welfare Work into the Medical School where it belongs and taking it from the University Extension Department—gives some promise of having the Child Welfare administered to the child's advantage as well as to that of the community and perhaps even to the doctor who lives where these clinics may be put on.

Dr. John F. Herrick, Ottumwa—As one of the Trustees of the State Medical Society I am familiar with the work that has been going on through our committee on Public Policy and Legislation and have attended a number of its conferences, and I want to say that we are nearer arriving at an understanding with relation to matters of controversy between the State University and the profession of Iowa than we have been for many years. Those

physicians in Iowa who have pride in their state would not want to injure the Medical Department of the State University, we are proud of it, but we do not want anything to go on that does not meet with our approval from the ethical point of view or from the point of view of the good of ourselves or of the profession generally. Dr. Houghton has ironed out a number of difficulties. We have agreed on the correction of many abuses. This is a matter to which we have given careful consideration, and possibly there are just as good brains in the medical profession of Iowa as among people generally. I do not know where one would find a more intelligent group of men. We are perfectly competent to take care of our own interests and business, and I agree with Dr. Houghton and Dr. Bierring in believing that the appointment of the committee recommended in a resolution presented this morning is a splendid thing and will help to smooth out the few remaining difficulties. I sincerely hope that within a short time these matters will be so arranged that you and I may say that we are with them in everything that comes up and that we can feel they are our friends just as are our neighbor physicians, and that we are their friends. We want our Medical Department to be the last word among medical institutions in this country, and believe that this can be accomplished without injuring ourselves or pauperizing some of the people who should not be pauperized.

ABNORMAL LACTATION

DAVID MITCHELL BLUM, M.D.

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DES MOINES

Galactorrhea is the abnormal prolonged secretion of milk. Witch's milk is breast milk in newborn babies. The authors wish to

- (a) review the literature
- (b) reassert the physiology of lactation
- (c) summarize the
 - (1) etiology
 - (2) chemistry of witch's milk
- (d) summarize the
 - (1) etiology and histology
 - (2) chemistry
 - (3) pathology and associated pathology
 - (4) treatment of galactorrhea
- (e) cite three interesting cases under observation.

REVIEW OF THE LITERATURE

Galactorrhea, or milk in the non-puerperal breast, was first described by Hippocrates. Normally, the milk appears in the breast about the second month of pregnancy in the form of colostrum, and is retained unchanged until about forty-eight hours after delivery, at which time, it assumes the characteristics and properties of

breastmilk. Normally, it is present until about nine months after delivery, and is said to be abnormal after eighteen months to two years. Fitzwilliams¹ states the normal amount of milk secreted by a healthy woman is about two and one-half pints per day. De Mussy² reports the case of a woman who secreted seven quarts per day. It is a relatively frequent occurrence that children have milk in their breasts the first few days of life. The literature reveals several cases of milk in the breasts of virgins due to titillation of the breasts. Knott³ described three cases of virgin nurse girls who allowed children to suckle, with the subsequent development of breast milk. Le Roy⁴ cites the case of an African Jewess who menstruated at ten, and at the same time developed milk. At twenty-three, she developed an acute mania. Breast engorgement with milk-like substances is not relatively rare about the age of puberty and at the time of the first menstruation. Blum⁵ reports a case of a girl, seventeen, who had two normally placed mammae and three in the region of the mons veneris the size of a goose egg, with seven nipples, four of which secreted regularly a copious amount of colostrum before and during the first day of menstruation; the two normal ones did not secrete at all.

Virgin sheep, dogs and rabbits have also been found to have milk and are subject to the same teat diseases as those who have whelped. Plass⁶ has observed human abnormal lactation in all nations of the globe. Gellhorn⁷ has observed a case of a boy, six or seven years of age, in Siam, who still nursed his mother. This is more or less common among the poorer classes for two reasons: (a) economic and (b) the belief that lactation prevents conception. Weinberg⁸ found that conception occurred during the first six six months after childbirth in 1.2% of 513 non-menstruating women and 59.5% in 615 women that were nursing. Fordyce⁹⁻¹⁰ noted that out of 645 cases, 22% had prolonged lactation; and an overlapping pregnancy and lactation occurred in about 24%. This may exist for some time without being suspected. This author thinks that prolonged lactation is also the cause of pelvic inflammation. Other cases under observation were:

Name	Duration	Notes
Seifert ¹¹	11 years	After an ectopic pregnancy
Arnheim ¹²	5 years	
Kneeland ¹³	5 years	
Walsh ¹⁴	5 years 6 months	
Nikalski ¹⁵	5 years	
Edelberg ¹⁶	6 years	Periods began at eighteen
Stewart ¹⁷	6 years 4 months	
Beltz ¹⁸	4 years	After child was weaned
Kummaff ¹⁹	32 years	
Cazeaux ²⁰	47 years	
Hall, U. of Maryland	20 years	
Francis, New York	14 years	
Stark ²¹	16 years	Age sixty-four
Green ²²	30 years	Age forty-seven

Seigart quotes five cases of grandmothers who nursed their grandchildren, each having from nine to seventeen children and nursing them for two years.

Dr. Elliottson²³ saw two women with milk in their breasts, one not pregnant, for over six years, and the other woman who had never been pregnant, and who evidently had ovarian trouble, for she had had amenorrhea for five months and milk in the breasts.

Gauthier²⁴ recorded the following case:

Mlle. B., aged twenty-five, had three sisters, all normal. She commenced to menstruate when fifteen but was not regular until she was nearly twenty. At twenty, the periods were suppressed without cause, for three months. At the age of twenty-five, they were again suppressed from August to November. In June, the following year, they were suppressed, but this was accompanied by a phenomena in the breast. Milk flowed abundantly from them for four or five days and then diminished and disappeared in the intervals. This was repeated until December, when the flow was less and there was a show of blood. In January, her periods returned but were accompanied by a flow of milk which continued till the following May. She was examined twice by a gynaecologist, who said her uterus and ovaries were normal. She was hysterical.

It was thought that the secretion of milk in non-pregnant women or in men was very rare, but this has been found to be not true. Landau⁶⁵ as early as 1890 wrote that secretion of the breasts is not extremely unusual outside of pregnancy and lactation and many even occur in man, and that in diseases of the genital organs the breasts frequently swell and secrete. In 1907, Grunbaum⁵⁰ reported that among twenty-one women castrated for disease of the uterus or adnexa fourteen showed secretion of milk about three weeks after the ovariectomy. This was true no matter whether the women had had children or not. The secretion lasted for from a few days to four months. In 1909, Vogt⁶⁶ reported a case of galactorrhea after a burn; it was a burn of the third degree extending over the whole breast and was followed by profuse secretion of both breasts and amenorrhea. The secretion of milk did not stop until after the wound was completely healed and then for the first time for thirteen months the period came on at the normal time. Lindig⁶⁷ made a systematic examination of his whole clinical material for secretion of the breasts and found that in over half the material there was a secretion, generally slight, on pressing or stroking the breasts. Very frequently there was a secretion in the breasts of tuberculous

virgin girls and old women without any disease of the sexual organs. There was no periodical variation in the secretion related to menstruation. Lindig came to the conclusion that the secretion of colostrum, even in nulliparae, cannot be considered a probable sign of pregnancy. In 1915 Ebeler⁶⁸ reported eighty-seven cases observed over three years. The secretion occurred in all kinds of diseases, both during the age of sexual activity and in the climacteric (eleven cases); it was particularly frequent in genital tumors. He too, comes to the conclusion that the occurrence of secretion outside the physiological conditions for it is not unusual and that it is not necessary for pregnancy to have preceded it (twenty-one of his patients were nulliparae). Gordlund⁶⁹ of Stockholm reported the largest material in 1917. In about four and one-half months he examined three hundred and ninety-three women and found that in non-pregnant nulliparae there was secretion in about fifteen per cent, and in about six per cent it had the typical appearance of milk. In non-pregnant primiparae or multiparae who had not nursed for a year before the examination there was secretion in about forty-six of the cases, in women in the menopause in twenty per cent, in some cases even five years or more after the beginning of the menopause. Among two hundred and nine sexually mature, non-pregnant women there was secretion in the breasts in seventy, that is, about thirty-three per cent. He examined fifty-six pregnant women and came to the conclusion that only pregnancy in the later months can be diagnosed from breast secretion, as at that time there is a much larger amount of secretion in the breasts than at a time when the diagnosis of pregnancy is still doubtful. He says there is no connection between colostrum and genital tumors. He says that the secretion of colostrum is of no diagnostic importance at all.

There are a number of cases reported which are supposedly authentic, in which men have developed enough mammary secretion after suckling a babe, to nurse one.

REASSERTION OF THE PHYSIOLOGY OF LACTATION

The mammary glands²⁵ are modifications of the skin glands, the constituents of the milk coming partly through the glands and partly directly from the blood. The organic substances of milk are peculiar in that they are not found in any other tissues of the body. The organic matter consists of protein, carbohydrates and lipin, and each is peculiar to milk: the carbohydrate is lactose, the lipin has fatty acids of low molecular weight and has special properties in nutrition, the protein is largely casein. There are also organic

substances which have little or no nitrogen, soluble in ether and alcohol as well as in water, of which the chemical nature is unknown; the amount of these in human milk at the beginning of lactation is about one per cent, and in the middle of lactation five-tenths per cent. Colostrum is richer in proteins and total solids than milk and contains many cells; milk corpuscles which contain nuclear material, while milk is practically free of such material. The fat has a higher melting point, a higher iodine number and has more cholesterol and lecithin. The protein is more coaguable on account of the colostrum corpuscles.

The protein of casein is phosphoprotein, the molecular weight being about eight thousand. It is not coagulated by heating and is precipitated by faint acidification with acids, soluble in excess. It clots or coagulates with a proteolytic enzyme and an enzyme found in the stomachs of calves and other young mammals.

The percentage of composition of cows casein is C 53% H 7% N 15.7% S 0.8% O 22% P 0.85% and when hydralized yields Alanine, Cystine, Leucine, Proline, Phenylalanine, Aspartic acid, Glutamic acid, Serine, Valine, Tyrosine, Arginine, Histidine, Lysine, Anmonia and Tryptophane. Diaminotrioxydodecanoic acid C 12% H 26% N 2% O 5% Dioxydianinosuberic acid, C 8% H 16% N 2% O 6%, and Caseinic Acid, C 12% H 24% N 2% O 5%. are not found in any other proteins except in casein. The casein of various animals differ in the percentage of N and P. Lactalbumin is C 52.19% H 7.18% N 15.77% S 1.73% and O 23.17% and is about one fifth the casein. The lipins in human milk are made up of .041% lecithin, cephalin .037% and the cholesterol about .021% plus vitamins. Citric acid is present in human milk to the extent of .05 to .1%. There is also a protein that gives a test for unoxidized sulphur. Orotic acid C 5% H 11% N 2% O 4%, has been found, also carniferrin related to nucleon or phosphocarnic acid which yields on decomposition carnic acid, lactic acid, succinic acid and axylic acid, C 18% H 28% N 4% O 8%, the latter splitting to leucine. There is also urea, purine nitrogen and there may be peptones and proteoses. Iron is present in small amounts and there are large amounts of calcium and phosphoric acid.

The following tables give the composition of human milk:²⁶

TABLE NO. I

	N	Fat	Sugar	Ash
26 to 51 hours.....	0.928	4.08	4.09	0.48
56 to 61 hours.....	0.508	3.92	5.48	0.41
5 to 6 days.....	0.327	2.89	5.75	0.34
8 to 9 days.....	0.247	2.75	6.75	0.24

TABLE NO. II

Knott ²⁷ In 1,000 Parts	Ages				
	15-20	20-25	25-30	30-35	35-40
Water	869.85	886.91	892.96	888.06	894.94
Solids	130.15	113.09	107.04	111.94	105.06
Casein	55.74	38.73	36.53	44.53	42.07
Albumin					
Butter	37.38	28.21	23.48	28.64	22.33
Sugar of Milk	35.23	44.72	45.77	39.53	39.60
Salts	1.80	1.43	1.46	1.44	1.06

ETIOLOGY AND CHEMISTRY OF WITCH'S MILK

Mammary secretion occurs in the breasts of infants a few days after birth, irrespective of sex. Steifensand²⁸ in 1845, has demonstrated that all glands of the new-born show marked activity. The occurrence of this reaction in the infant breasts is due to a physiological stimulus.²⁹ Early investigators explained the secretory phenomenon as due to the concentration of the blood of the new-born, or a "fatty metamorphosis of the central cells of the foetal 'anlage' of the gland which is solid", or with a "desquamation of the glandular epithelium". The researches of Sinety³⁰ have shown that the breasts of infants contain cul-de-sacs which are lined with secreting cells having the same characteristics as those found in adults and that the process of secretion begins during foetal life and reaches its greatest height between the fourth and tenth day after birth. Starling and Lane-Claypon³¹ state that the physiological stimulus is the same as that which acts upon the mother's breast. Brumm³² contends that the skin of the new-born being very sensitive, responds to the stimuli of air and light by reddening and exfoliation of the upper layers of the epidermis. Such stimuli irritating the breast produces a mammary secretion. Halban³³ is of the opinion that a physiological stimulus acts upon the breasts and uterus of the new-born and the nature of this stimulus is an internal secretion from the placenta. Lactogen³⁴ is cited as a substance, produced by the ovaries and the uterus, which causes infant lactation, and in gravid puerperal women stimulates the production of milk.

Mammary secretion, which is termed Witch's milk, is almost uniformly present in full term infant's, but in prematures, it is uniformly absent. A few days after birth, the mammae may become engorged, red and firm, with dilated vessels, resembling normal activity of lactating breasts. The size of the breasts varies from a small pea to a half of a walnut. An interesting observation³⁵ has been made that a parallelism exists between the amount of engorgement of the breasts of the infant and the amount of milk secretion of the mother. In many cases, the secretion may be expressed on the fourth day of life and occa-

sionally on the second day. The amount of secretion varies from a few drops to a drachm, although ten cubic centimeters has been expressed from the breasts of a male infant at one time. The average duration of engorgement is from two to three weeks. Bash³⁶ states that milk may be expressed from the breasts in the second month infrequently and in exceptional cases, the fifth month. Runge³⁷ reports cases in which small amounts of secretion may be expressed at the end of the second year. According to Pfaunder and Schlossmann³⁸ the secretion usually persists into the eleventh month. The analysis of the breast secretion, a few days after birth, resembles colostrum. Genser's³⁹ analysis of mammary secretion from a fourteen day old infant is regarded as representing the typical chemical composition of infant breast secretion. The results of Quevenne, Fay and Schlossberger are also given below:

	Genser	Quevenne	Faye	Schlossberger
Water	95.705	79.400		96.78
Solids	4.295	16.000		
Casein	0.557	2.200	0.560	
Albumin	0.490		0.490	
Fat	1.456	1.400	1.460	0.82
Lactose	0.956	6.220	0.960	
Salts	0.826	0.340	0.859	
Ash				0.05
Casein, sugar and extractives				2.83

Schlossberger⁴⁰ expressed enough mammary secretion from the breasts of one infant for analysis, but the chemical analysis is rather incomplete. Microscopically, the secretion contains milk globules, leucocytes, and colostrum corpuscles.

The activity of infant breasts is due to a physiological stimulus which originates from the ovaries and placenta, and the chemical composition of the secretion from the mammae resembles adult colostrum.

ETIOLOGY OF GALACTORRHEA

Goodsir⁴¹ says that in the mammillary glands, the inner surfaces of the ultimate milk follicles are covered by a layer of epithelial cells; the true agent of the process of secretion. As soon as one set of cells empties its contents, the cells die and are replaced by new cells from the nuclei of a germinal cell of its follicles. Bird⁴² obtained evidences that this activation commences in the blood and goes on during lactation; this evidence is through kystein (which is nearly related to casein) in the urine during pregnancy, indicating the conversion of albumin into casein and preventing its accumulation in this fluid before it is secreted by the mammae by this curious substance in the urine. If these results are true, it does not seem so strange that the secretion of milk should

be permanent under favorable conditions, any more than the secretion of urine and bile, once commenced, should be permanent. According to this theory, this continuous abnormal secretion may rid the system of nitrogen by transferring the office from the kidneys to the breasts and would remove it by casein instead of by urea. Fitzwilliams⁴³ states that:

Roehrig⁴³ operated upon curarized goats and divided the external spermatic or pudic nerve which supplies their glands. The amount secreted was at once diminished. On stimulation of the peripheral end, the flow ceased. He came to the conclusion that the milk flow depended far more upon the vasomotor changes in the gland than upon the direct secretory influence, and that a rise in blood pressure was accompanied by milk flow. Increased flow occurred after strychnine, caffeine, and digitalin were given, all of which increased blood pressure, and this after the nerves had been divided. On the other hand, drugs which diminished blood pressure also diminished secretion; the most powerful of these drugs were chloral hydrate and atropine; potassium bromide was less powerful.

Ribbert⁴⁴ transplanted the breast glands of a guinea pig, below the ear, and when the animal became pregnant, the glands developed normally and secreted milk; so there must be some endocrine catalyst.

In exceptional instances of lacteal secretion, it may take the place of menstruation altogether. Puech and Courty⁴⁵ have collected twenty-six cases of vicarious menstruation to which the cases of Langdon⁴⁶ and Gauthier²⁴ may be added. Jones⁴⁷ observed vicarious menstruation over a period of five years in a female who had an abnormal supply of milk, lasting thirty-six hours, every month. Tilt⁴⁸ described mammary irritation and swelling with the secretion of a milky gelatinous fluid in about fourteen out of five hundred women at the menopause. Venuta⁴⁹ found that castrated cows produce more milk than non-castrated ones. Gruenbaum⁵⁰ and Alsberg⁵¹ report fifteen cases in which the removal of both ovaries was followed by mammary secretion which was either colostrum or milk. Starling and Lane-Clayton³⁰ found that extracts made from the body of rabbit fetus when injected into a virgin rabbit, caused a general development of the mammary gland. Bosh,⁵² also Le Count and Pearlstein⁵³ report the case of the Balzek sisters who were conjoined twins and had a common circulation but separate nervous system. Pregnancy and parturition in one was followed by mammary secretion in both. Pseudocyesis has been associated with milk in the breasts. Spayed rabbits and

pigs allowed to prohabit with normal females has been followed by milk in the breasts. So it seems that mammary secretion is dependent upon a number of factors, partly endocrine coming from the pituitary, thyroid, ovary, placenta and fetal hormones; probably the corpus luteum is also an exciting factor. It may also have a nervous influence as shown by the experiments of Roehrig⁴³ and the fact that it may be associated with pseudocyesis⁵⁴. The blood pressure may also be a factor. Mammary secretion itself may contain hormones but it is the author's opinion that none of these explanations cover the whole story, but that Galactorrhoea may be put into a general picture as portrayed in these notes. Even the internal chemistry may explain some cases.

Landau⁶⁵ concludes from the fact that milk secretion occurs in men that the development of the sex glands is not the only factor that affects breast secretion. But most other authors assume that there is an intimate connection between the breast and the ovary. There are many arguments in favor of this. Increased breast function inhibits ovulation: when a woman is nursing there is amenorrhoea and if nursing is carried on too long the ovaries and uterus may atrophy and conversely lactation often stops with the occurrence of the first menstrual period after delivery. Lactation is also furthered by removal of the ovaries; when cows, eight or nine years old, are castrated there is an increase in the amount of milk for twenty to twenty-four months as there is after calving. Polano⁷⁰ speaks of the antagonism between ovulation and the function of the breasts and Cramer⁷¹ emphasizes the fact that the development of the female breasts is dependent on the function of the ovary. Physiological and pathological irritations of the ovary and sexual system result in irritations of the breasts which may increase to the secretion of a small amount of milky fluid while true milk secretion is dependent on pregnancy. The ovaries have no effect on the pregnancy hyperplasia of the breasts and the puerperal secretion of milk. Saenger⁷², Askanazy⁷³ and Schmincke⁷⁴ assume that substances are formed in ovarian tumors which act like hormones on milk secretion. Lindig⁶⁷ from his material does not agree with the theory of a specific stimulus. He thinks that both tuberculosis and carcinoma lead to breaking down of body albumin and that the presence of these products in the blood may stimulate the activity of the breast. But Ebeler⁶⁸ rejects the theory of blood chemistry and accepts a nervous theory; he says that the secretion of colostrum is a purely reflex process. He says secretion is not produced in all cases because the stimuli do not reach the threshold value. Biber-

stein⁷⁵ reports four cases of breast secretion which he considers tabetic crises. All of these articles consider the problem from the clinical point of view but there are two authors who have taken it up from the histological point of view.

HISTOLOGY OF GALACTORRHEA

Saenger⁷² describes two cases of carcinoma of the ovary with secretion of milk by the breasts; the histological picture of the breasts was that of a true lactating breast. The gland fields were not very numerous but they contained many terminal vesicles filled with secretion. Schmincke also demonstrated a carcinoma of the ovary with lactation of the breast in 1913. But no really thorough study of the histology of pathological milk secretion has been made. That is probably due to the fact that little is known of the normal anatomical and functional changes in the female breast. Until recently the generally accepted theory was that the resting breast consists for the most part of connective tissue in which there are a few milk ducts lined with two layers of epithelium and that the gland tissue only proliferates and secretes at the time of pregnancy by the budding out of acini lined with a single layer of epithelium. But Berka⁷⁶ has recently given an interesting description of the female breast. He says that secretion can be found in the lumens of the ducts in the virgin breast; it may also contain small amounts of fat. The source of this fat may be the colostrum of the new-born infant and that the fat may have been there through all the years since then. Fat may also remain in the milk duct of adults for years after pregnancy. In addition to fatty degeneration of cast-off cells, secretion of the milk-duct epithelium may also be the source of fat even in young girls. Such secretion is not due entirely to development of the terminal vesicles but may occur in new-born infants in whom no acini have developed, in the epithelial cells of the milk ducts. So in addition to the clinical theories there is this histological theory that the secretion from the breast is due to residues of colostrum in the milk ducts of the breast. Recently Rosenberg's⁷⁷ examinations have thrown new light on the histology of the breast. He found that the breast shows changes at every menstrual period caused by the corpus luteum. In the premenstrual period there is a great hypertrophy of the gland tissue with the development of many sharply circumscribed gland fields. In these there are clumps of epithelial cells surrounded by many connective tissue cells, some of them in solid clumps or buds, some in the form of fine gland tubes lined with a single layer of epithelial cells. These gland fields recede during menstruation and the post-menstrual period so

that in the intermenstrual period there are only a few milk ducts in the breast tissue. Polano⁷⁰ confirmed these findings in the examination of thirty excisions from living subjects, but sometimes he found that the gland buds persist and in some cases they do not develop at all. Berberich⁷⁸ also confirmed Rosenberg's findings in more than eighty cases. But Diekmann⁷⁹ in a work that has appeared recently contradicts these findings. He denies the budding and retrogression of the gland tissue during the menstrual cycle and believes that the occurrence of acini depends on age, the terminal vesicles only appearing in later years and being lacking in young individuals. Up until about the nineteenth year the glands show an infantile type with large ducts divided into two branches but no gland fields. Then the development of mature breast tissue begins; gland fields first develop but with no terminal acini. Functioning terminal alveoli are seen only in the breasts of pregnant women. Retrogression of mature gland tissue occurs only in long amenorrhea, but never in the menstrual cycle. Diekmann⁷⁹ says that Rosenberg's findings are explained by the fact that he only examined cases in which the breasts still showed the infantile type and that the processes of budding were caused by processes of detumescence in the stroma which in the premenstrual period led to pronounced edema and enlargement of the gland lobules. Unfortunately Rosenberg and Berberich only reported the histological picture and did not say whether secretion could be expressed from the glands or not. If there were such a secretion in the fully developed premenstrual breast it could not be considered fat that had remained there since infancy, as suggested by Berka, but must be the product of fresh excretion in the fully developed breast. So however valuable Rosenberg's examinations may be from the histological point of view they give no information in regard to secretion outside of pregnancy.

Litten⁸⁰ therefore made a series of examinations to test Rosenberg's findings. In order to determine whether the milky fluid that can be expressed from the breasts of non-pregnant women is secretion that has been retained for years, or a result of the changes described by Rosenberg or due to some other factor he made a systematic examination of the female autopsy material of the Pathological Institute of the Rudolph Virchow Hospital; the breast secretion of non-pregnant women was examined macroscopically and microscopically, cytologically and histologically. He examined eighteen such cases and five pregnant cases as controls. Such secretion is not rare, for in the examination of autopsy ma-

terial of this hospital, which amounts to about 1300 cases yearly, he found a case about every third day.

From the study of these cases the author concludes that a milky secretion is frequently found in the corpses of non-pregnant women. In four cases it was purely a retention of secretion after delivery, in one, the contents of numerous cysts in a very young individual. In fourteen cases there was a true secretion; five of these patients were in the menstrual or premenstrual period. This agrees with Tosenburg's demonstration of increased secretion of the breast in the premenstrual period. The other nine patients had entered the menopause and so represented a special group which may be called cases of pathological lactation. These were women forty to sixty years of age; most of these breasts showed malformations or new growths, such as fat-forming adenomas and cysts, which were not found in the other groups. The interstitial tissue of the gland fields of all the breasts showed a greater or less accumulation of lymphoid and plasma cells, but no leukocytes.

There were no special differences in the nature or amount of secretion in the different groups. The majority of cases of secretion from the non-pregnant breast seem to be ones of pathological lactation in women who have reached or are approaching the menopause.

CHEMISTRY OF GALACTORRHEA

Cameron, Terrier and Thorlackson⁵⁵ have reported urinary, milk and blood findings in a case of galactorrhea. They report:

Blood:	Per cent
Glucose1
Urea nitrogen	14.1
Uric acid46
Creatine	1.4
Urine—Twenty-four hour sample:	
Urea nitrogen	4.75
Ammonia nitrogen26
Total nitrogen	7.71
P ₂ O ₅29
Na CL	7.50
Creatinine88
Creatine15

Sugar, albumin, acetone bodies were all absent; diazo-reaction negative, indican slight.

Milk:	
Total nitrogen	1.21
Protein	7.7
While the filtrate showed:	
Total nitrogen54

They also showed the chemical composition of this patient's milk, compared with normal human milk and milk of a bitch and sow:

NORMAL HUMAN MILK						
	Mrs. K	1-9 Months	10-20 Months	Bitch	Sow	
Specific Gr.....	1.039	1.028 - 1.034				
Solids	17.4	12.2	12.2	24.6	17.6	
Ash	0.2	0.21	0.21	0.7	1.1	
Protein	10.3	1.15	1.07	9.9	6.1	
Fat	6.4	3.26	3.16	9.6	6.4	
Lactose	0.9	7.50	7.47	3.2	4.0	
Total Creatinine	0.0067	0.0026-0.0037				

Geard⁵⁶ gives the history of a woman living in Colomb-Bechar, Algeria:

This woman was married at about eighteen or twenty years of age. She had had five children, the last one being born about 1890. She was approximately sixty-five years old. She stated that she had not menstruated since her last nursing, which was about 1903, at least twenty-three years ago.

The child which she was nursing was the fourth child of her oldest son, who appeared to be about forty years old. When the child was first born, she put him to her breast and milk appeared in four or five days. The child was also nursed by his mother. Both women were very poor and practically never had meat. Their usual diet was dates and a form of wheat.

When examined on January 15, 1925, she was able to furnish about forty-five grams of milk, although she had nursed her grandson a few minutes previously. This milk was sent to the laboratory for analysis. It had all the physical characteristics of human milk. It was opalescent, alkaline and practically without odor. It did not coagulate with diluted acetic acid even on heating. The results of the analysis were as follows:

Dry residue	122.40	Fat	36.10
Lactose	70.20	Ash	1.80
Casein	10.10		

Hence its composition was practically normal.

PATHOLOGY AND ASSOCIATED PATHOLOGY

McKenzie⁵⁷ calls attention to the effect of prolonged lactation and diseases of the eye, and describes a case of retinitis due to it; this is usually bilateral. Taylor⁵⁸ says that this may vary from a slight impairment to complete loss of sight. Epilepsy is known to have developed from it, and Luke⁵⁹ mentions a case of insanity. Gruenbaum⁶⁰ reviews twenty-two cases of secretion of milk from eleven to seventeen days in women of childbearing age, following hysterectomy and ovariectomy. Gellhorn in the University of Berne Clinic, found colostrum in the breasts of twenty-five out of forty-four cases of fibroids. Walsh⁶¹ states the deleterious effects are more noticeable in women below par and these suffer from circulatory and nervous disturbances; also that the endometrium as well as the muscular structures partake of the general debility and the women suffer metrorrhagia from relaxation of the capillaries. Leucorrhea is usually present. De Lee⁶² evidently thinks this condition is relatively uncommon for he states in his book: "If ever I should see another case" . . . Associated with this condition there may be marked secondary anemia, loss of weight, cachexia, etc. Lawson Tait thinks that prolonged

lactation is the cause of a great many sub-involutions and in ninety-nine out of one hundred cases there may be chronic endometritis, and it may be accompanied by and is indirectly due to, sub-involutions of the uterus following labor or miscarriage. Skene also thinks that this is predisposing to endometritis. Marian Sims⁶³ says metrorrhagia may come from superlactation, but such cases are uncommon. Duval⁶⁴ classifies non-puerperal mammary secretion as follows:

- (a) Menstruation
- (b) Tumors of the breast
- (c) Affections of utero-ovarian apparatus
- (d) Mechanical or psychic stimuli independent of any material modifications of the organ
- (e) Causes after menopause.

TREATMENT

Tight binding has been recommended. Chloral hydrate, potassium iodide, and belladonna have been suggested therapeutically, as well as a restriction of fluids. Amongst the endocrines, De Lee⁶² especially suggests corpus luteum and mammary extract. X-rays have been successful in causing some disappearance of the milk, though its use should be cautious in women who might bear more children. On the whole, all therapy is disappointing and general measures to build up the patient should be encouraged. Amniotin may be of value in reproducing catamenia.

CONCLUSIONS

The recognition of this condition should suggest the important medico-legal question—that all women who have milk in their breasts are not necessarily pregnant or nursing children. Also that it may occur independent of pregnancy. The diagnosis is based on the physical findings of milk in the breasts, and the treatment is unsatisfactory.

CASE HISTORIES

	Age	Weight	Height
1. Mrs. L. F. C.....	30	103 pounds	5' 3"

Her periods began at the age of sixteen, and were quite irregular; leucorrhea was present. At the age of eighteen, she developed hoarseness which was suspicious of tuberculosis. She went west for three months, after which time, she made an apparent recovery. Since reaching maturity she has always weighed around 103 pounds, with scanty irregular periods and marked amenorrhea for five or six months. On September 19, 1929, she had an attack of gastro-enteritis which subsided in twenty-four hours. The last long period of amenorrhea was of six months duration. On November 11, 1929, a physical examination was essentially negative except for chronic tonsillitis, milk in both breasts, a small umbilical hernia, and an enlarged right ovary which felt cystic. Her blood pressure was 120-80;

the urine was negative; her blood showed Hemoglobin 60%, red blood cells 3,600,000, white blood cells 8,200; a differential count showed polymorphonuclears 42%, small lymphocytes 52%, large lymphocytes 4% and transitional cells 2%. The red cells showed anascytosis and hypochromasia. After a series of injections of iron cacodylate and thyroid-ovarian tablets, by mouth, she felt improved. Her last blood count showed Hemoglobin 75%, red blood cells 4,940,000, white blood cells 7,300; polymorphonuclears 81%, small lymphocytes 17%, transitional cells 2%, and the red blood cells apparently normal. She has a child three and one-half years old, and on March 3, 1930, she still had milk in both breasts. Bimanual examination showed she was not pregnant.

	Age	Weight	Height
2. Mrs. M. K.	31	185 pounds	5' 6"

At the age of fifteen, she had an acute appendix treated medically, which re-occurred when she was three months pregnant with her first child, and subsided under medical treatment. Her periods began when she was eighteen, after a series of hypodermic injections the nature of which she does not know. She was married six years ago, and became pregnant immediately; she had a long labor of four days, with forceps and laceration. Three years ago, her second child was born spontaneously. She has always had leucorrhea off and on. Since her first child she had milk in her breasts which she noted from time to time. At the time of the examination, January 18, 1930, she had a functional heart murmur, spastic colitis, a fixed retroverted uterus, marked chronic endocervicitis, diastasis of the recti muscles, slight cystocele, and milk in both breasts. Her urine was negative. Her blood count was: Hemoglobin 65%, red blood cells 5,350,000, white blood cells 11,300; a differential count showed polymorphonuclears 63%, small lymphocytes 37%, and the red cells appeared normal except for anochromasia. Since her last child was born, her periods have been irregular, coming three to seven days early or late. Bimanual examination March 15, 1930, showed she was not pregnant.

	Age	Weight	Height
3. Mrs. J. L.	28	108 pounds	5' 3"

This patient had an appendix removed six years ago for chronic appendicitis. Shortly afterwards she developed a right kidney infection which cleared up under cystoscopic treatment. Four years ago, she had a traumatic injury to her head and neck without any fractures. For the past three years, she has had treatments off and on for "ulcers of the womb." Three years ago, she had a normal delivery preceded by hemorrhages so severe that she was in the hospital off and on. She has a marked neurotic taint; on the least provocation, she vomits and will vomit everything that she eats for weeks. During her pregnancy, it was found that she had a positive Wassermann test, her husband giving a suspicious history. She was treated off and on since and at the time she was examined, December 12, 1929, she had a negative Wassermann and a two plus Kahn test. When examined, she had a cloudy left antrum

and a tender right frontal sinus; a puncture of the antrum revealed no active infection. She also showed chronic tonsillitis; milk in both breasts; and a systolic rumbling murmur at the apex, not transmitted except in the mitral area; the heart was not enlarged. She also had a markedly tender spastic colon. The cervix was gaping and showed evidence of a marked endocervicitis, and a mucous discharge. Her periods had been somewhat irregular since she started to menstruate. She was only able to nurse her baby a couple of weeks, and then had to resort to bottle feedings, since which time the child has not been at the breasts. She has been under treatment for lues and is now receiving bismuth injections. She had her cervix cauterized with a good healing result. She started to vomit again February 1, 1930, and this lasted for six weeks, the emesis coming on as soon as she ate solid food, though she was able to retain liquids. Barium solution and bread soaked in barium, showed under the fluoroscope no evidence of obstruction along the oesophagus; stomach and duodenum were negative for evidence of obstruction or organic lesion. Bimanual examination March 30, 1930, showed she was not pregnant.

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BARRIER BETWEEN THE BLOOD AND CEREBROSPINAL FLUID

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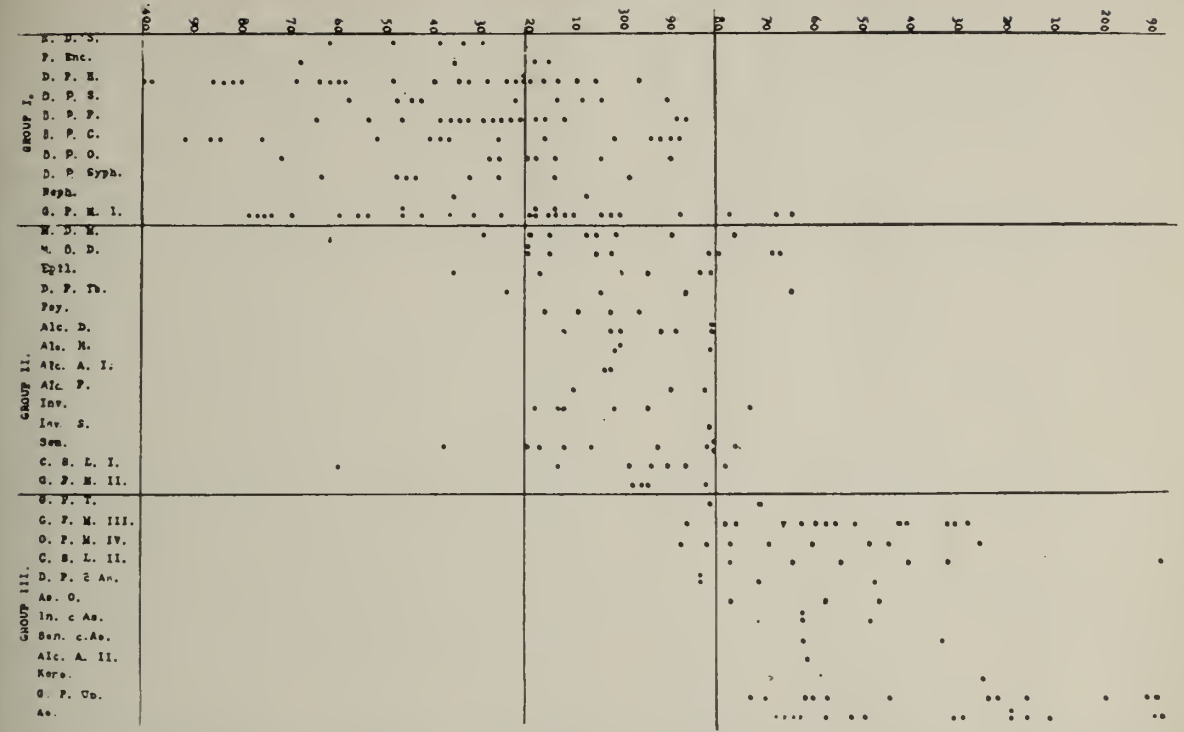
From the Iowa State Psychopathic Hospital

Ever since the introduction of the spinal puncture numerous methods have been devised for the investigation of the nature and function of the cerebrospinal fluid. The very intimate relationship between this fluid and the central nervous

system rendered it a natural point of attack in the search for the causes and treatment of mental and nervous diseases. One method which has recently come into particular prominence is the study of the exchange of substances between the blood and the cerebrospinal fluid. Whatever the nature and point of origin of the cerebrospinal fluid may be, it is quite logical to assume that a great many of the substances found in it and thus conveyed to the different parts of the central nervous system must come from the blood. It would therefore be very important to find out whether any irregularities in this exchange may occur in association with certain types of diseases. The early methods of investigation of this function offered a number of technical difficulties, but recently Walter introduced a new method, which had the advantages of simplicity and reliability. It is known as the "Bromide Method" and consists in an oral administration of a certain quantity of sodium bromide (depending upon the weight of the patient) for five days. On the sixth day specimens of blood and cerebrospinal fluid are taken at the same time, the proteins in both are precipitated by trichloroacetic acid, filtered and to the clear filtrate a certain quantity of gold chloride is added. This combines with the bromides in the fluids causing a brown coloring of the clear fluids. The depth of the color depends upon the amount of bromides so that upon colorimetric comparison, we can compute the ratio between the amounts of bromides in the blood and in the cerebrospinal fluid. This ratio is termed the *quotient*, and changes in it represent fluctuation in the passage of bromides from the blood into the cerebrospinal fluid. Whatever the structure that separates these two fluids may be, it can be considered as a barrier between them, and the quotients represent increased or decreased resistance of this barrier. In our first communication on this subject,¹ we reported the following: In normal individuals the quotient is about 3 (ranging between 2.8 to 3.2.) In a study of 270 cases of different types of mental and nervous diseases we found that some of these had definite and consistent deviations from the normal. This can be best appreciated from the following chart.

We see from this chart that the different mental diseases recorded in it can be divided into three classes according to the quotients.

(1) In the middle group we have a number of conditions in which the distribution ratio is about normal varying between 2.80 and 3.20. (2) In the group above and to the left of the middle one we find that the distribution ratio is higher than in normals. That is, less of the bromides passed into the cerebrospinal fluid. (3) In the group below and to the right of the middle group the



The different disease entities are designated by abbreviations and are arranged along the left side of the Chart in order of descending permeability quotients, as follows: M.D.S., schizophrenic psychoses recurring in cycles; P. Enc., post-encephalitic psychoses; D.P., dementia praecox (with the appended letters as follows: H, hebephrenic; S, simplex; P, paranoid; C, catatonic; O, other types; Syph., with syphilis; Neph., with nephritis); G.P.M.I., paresis successfully treated with malaria at the stage when the patients show clinical improvement; M.D.M., manic-depressive, manic type; M.D.D., manic-depressive, depressed type; Epil., psychosis with epilepsy; D.P.Tb., dementia praecox with acute pulmonary tuberculosis; Psy., psychoneuroses; Alc., alcoholic psychoses (with the letters D, alcoholic deterioration; H, hallucinosis; A.I., delirium tremens (D.T.) after the attack was over, and P, alcoholic paranoid); Inv., involutional melancholia (with appended S, mixture of involutional and senile pictures); Sen., senile psychoses; C.S.L.T., psychoses with cerebrospinal syphilis, treated; G.P.M.II, paresis treated with malaria but unsuccessfully, the quotient representing the early stage after treatment; G.P.T., paresis treated with antisyphilitic drugs; G.P.M.III, malaria treated paresis that was unsuccessful and representing the later stages; G.P.M.IV, the early stages of successfully treated paresis; C.S.L.II, psychosis with cerebrospinal syphilis before treatment of any kind; D.P.c.As., dementia praecox with cerebral arteriosclerosis; As.O., other psychoses with incidental cerebral arteriosclerosis; Inc.c.As., involutional melancholia with cerebral arteriosclerosis; Sen.c.As., senile psychoses with cerebral arteriosclerosis; Alc.A.II, acute alcoholic psychoses (D.T.) during the attack; Kors, Korsakoff psychoses; G.P.Un., paresis not treated; As., psychoses with arteriosclerosis.

The numbers on top of the chart indicate the permeability quotients ranging from 4 to 1.88. The black dots represent individual cases.

ratio was lower, that is, more bromides than is normally the case passed into the cerebrospinal fluid.

When we analyze the findings in this first communication we find that most of the patients in whom the distribution ratio was higher, that is, where passage of bromides was for some reason decreased, were suffering from the disease group known as dementia praecox or schizophrenia. This is of special interest as up to recently no deviations from the normal have been reported in the cerebrospinal fluid of schizophrenics. Furthermore, practically all the diseases in which a low ratio, that is, an increased passage of bromides into the cerebrospinal fluid was found were diseases associated with and probably due to affection of the smaller vessels of the brain (general paralysis, cerebral arteriosclerosis, etc.).

These studies have been carried on since then with the same results. Of the numerous possibilities that this form of investigation opens up, the following points are of especial interest.

(1) Therapeutic value. The apparent association between the distribution ratio of bromides and the condition of the blood vessels of the brain suggested the possibility of using this quotient as an indicator of therapeutic success in those cases where our therapeutic agents function by way of reducing the pathology of the blood vessels. This was especially valuable in malarial treatment of general paralysis. It is quite universally accepted now that the effect of malarial treatment on the central nervous system of the general parietic is to reduce the inflammatory conditions about the blood vessels. Actually we found that the distribution quotient was directly related to the clinical success of our treatment as is shown from the following table:

TABLE I
PERMEABILITY INDICES IN G. P. TREATED WITH MALARIA

GROUP I							
J.A.W.....	189	248	264	353	280	303	321
J.W.D.....	201	219	246	305	363		
I.M.W.....						375	401
W.H.G.....	257		277	287	332		
A.L.....	261	314	304	301			

W.M.M.....			312		318	336	300	306
D.A.....270	355	378		313				
F.E.C.....254	368	308	312	330				
I.S.P.....303	275		338	332	344	321	342	
H.E.P.....274	235	286	297	300				
M.D.....200	289	260	247					
E.W.C.....163		247	257					
T.I.B.....				265	351	295	220	300
GROUP II								
H.B.C.....222	287	300						
A.G.S.....227	198	250	285	237	306			
J.H.G.....242	203		270					
P.K.....264	274		307					
L.A.B.....212	194	240	252	345				
A.F.....		269	282	304	286	304	247	323
H.G.....			354					
R.L.F.....240	257	298	290				263	
A.P.....382	249	285	301					
G.H.C.....			260	282	260	247		280
T.R.....		313	300	306	294	428		
W.E.P.....254	199	293	321					
J.H.C.....255	263	282	278	285	278			
G.H.B.....260	228			267	259		295	
G.L.....244	277	276	311	284	365			
C.E.D.....			342					
GROUP III								
J.P.H.....			302	380	296	341	247	
A.L.S.....285	224	356	294	294				
G.R.....		318	300	330	310	323	328	
J.L.....		225	244	288	266	287	310	298
GROUP IV								
H.J.....290	213	277	262	291	285	259		
C.K.....		276						
F.E.J.....316	182	299	232	198				
A.G.....282	242							
J.E.B.....224		232	259	230	246		246	
G.B.G.....		294	261	270	299	275		277
V.C.....		297	299	316	272		259	
C.M.....		281	257	258	258		244	
R.A.C.....				313	325	304	312	248
G.B.....			348	338	369		360	259
V.C.....				313	268	283	281	
M.F.....						225		
J.E.S.....				377	359		291	208
R.R.S.....260	285	322	291	235	271			

ment took place gradually showed a change in the quotient towards the normal and even higher than the normal, whereas the reverse took place in cases where the patients grew worse in spite of the treatment.

(2) The fact that such a close association could be shown to exist between the condition of the blood vessels and the quotient could be utilized as an approach of the study of the pathology of diseases where so far no actual lesions have been demonstrated. This is particularly useful in cases of schizophrenia. For if a lowering of the ratio, that is, an increase of the amount of substances passing into the cerebrospinal fluid is associated with a disease of the vascular wall, is it not possible that a reversal of this condition, that is, an increased resistance in the wall may be responsible for the decreased amount of bromides that could pass into the cerebrospinal fluid?

If this were shown to be the case, a possibility of a therapeutic approach of schizophrenia could also be made on that basis.

(3) The differential diagnostic value. In the clinical practice of mental disease one finds it at times particularly difficult to differentiate cases of schizophrenia from other mental diseases, notably manic-depressive psychosis and toxic conditions. The following table shows a few cases in which the bromide quotient was helpful as a differential diagnostic criterion.

It is outside the scope of this paper to go into the discussion of the nature and mechanisms of this barrier between the blood and cerebrospinal fluid and the exchange of substances through it. At present studies are being carried on in this hospital for the purpose of solving this problem. For there is no doubt that a clearing up of this question will help materially in our practical work with mental and nervous diseases.

(1) Malamud, Wm., D. M. Fuchs & N. Malamud, Archives of Neur. & Psych. 20:780, 1928.

TABLE II
DIFFERENTIAL DIAGNOSTIC VALUE OF THE DETERMINATION
OF DISTRIBUTION RATIO

Name	Ratio	Original Diagnosis		Final Diagnosis	
C.C.....	395	Manic	depress. (manic)	Schizophrenia	(catatonic)
G.W.....	358	"	" (depressed)	"	"
A.V.S.....	358	"	" (manic)	"	(paranoid)
M.E.....	354	"	" (depressed)	"	(catatonic)
B.B.....	336	"	"	"	"
N.C.....	331	"	" (manic)	"	"
H.M.....	382	Undiagnosed Psychosis		Schizophrenia	(paranoid)
A.K.....	330	"	"	"	(catatonic)
A.C.....	330	"	"	"	"
J.McC.....	328	"	"	"	(paranoid)
H.C.....	364	Presenile Psychosis		Schizophrenia	(paranoid)
A.B.....	305	Schizophrenia		Manic Depressive	(depressed)
E.M.....	275	"		Psychoneurosis	
D.L.....	236	"		Psychosis with	Encephalitis
S.F.....	246	"		Toxic Psychosis	

THE SURGICAL TREATMENT OF
RAYNAUD'S DISEASE

J. P. CLARK, M.D.

From the Department of Surgery

In 1862, Raynaud described the condition which has subsequently been called Raynaud's disease. Since no organic changes were demonstrable in the blood vessels Raynaud decided that the circulatory disturbance which was present in this disease must be due to a vascular spasm. During more recent years the microscopic study of the capillaries in the nail fold during the various stages of the attacks of the disease has substantiated the original idea of the nature of the condition. In the normal individual exposure to cold leads to a vasoconstriction in the exposed area, this effect being produced by the vasoconstrictor mechanism. In Raynaud's disease there is an exaggeration of the normal response so that very slight changes in the environmental temperature may incite intense vascular spasm. During the stage of vasoconstriction the affected area is pale and cold. With the gradual relaxation of the spasm a stage of cyanosis and a stage of hyperemia are observed.

The surgical treatment of the disease consists in an attempt to interrupt the path of the vasoconstrictor reflex by dividing or resecting various portions of the sympathetic tract. The evolution of operative procedures which will accomplish such interruption effectively and completely has been dependent upon the development of accurate anatomical knowledge of the sympathetic nervous system. Some of the procedures which were formerly advocated were ineffective because of the lack of such knowledge. The Leriche periarterial sympathectomy might be mentioned as one of the operations which was tried and found wanting.

At the present time the standard operation for the relief of Raynaud's disease involving the lower extremity consists in an excision of a portion of the lumbar sympathetic trunk, including the second, third and fourth lumbar ganglia. The transperitoneal approach is preferable because it gives access to the sympathetic chain of both sides. The results obtained by this operation have been very satisfactory. The change in the color of the extremity and the elevation of the surface temperature give evidence of the improved blood supply and the painful angiospastic attacks are eliminated.

Most of the vasoconstrictor fibers which supply the upper extremity reach the brachial plexus by the way of the gray rami which emerge from the stellate (or cervicothoracic) ganglion. Therefore, the surgical treatment of Raynaud's disease involving the upper extremity must include the excision of this ganglion or a division of its rami.

Such was the procedure which was formerly carried out. This operation led to a marked alleviation of the symptoms but it was soon realized that in some cases the results were incomplete and unsatisfactory. In 1927, Kuntz¹ showed that some of the sympathetic fibers reach the brachial plexus below the stellate ganglion, passing from the second thoracic ganglion to the brachial plexus via the first and second thoracic spinal nerves. This information explained the poor results obtained by the former operation and made it plain that the operative attack which has as its objective the division of all of the sympathetic fibers to the upper extremity must include an excision of the second thoracic ganglion as well as the excision of the stellate. Then Adson,² making use of this information, devised his operation which consists in the excision of these two ganglia and the intervening portion of the sympathetic trunk. He approached these structures through a para-vertebral incision, removing the transverse process of the second thoracic vertebra and a segment of the second rib. In May, 1929, when Dr. Adson described this operation he reported two cases in which the procedure had been carried out with excellent results. It would seem that the matter has now been carried past the experimental stage and that effective and logical operations are now available for the control of Raynaud's disease in both the upper and lower extremities.

I wish to report a case of Raynaud's disease of the upper extremities which was recently treated at the University Hospital. It gives further proof of the effectiveness of the Adson operation and is of especial interest because of the development of a post-operative mediastinitis from which the patient recovered.

An American female, age 30 years, was admitted to the surgical service on September 16, 1929. For many years she had noticed that her fingers became pale and numb on exposure to cold. When she got inside where it was warm the fingers became red and tingled. During these years there was but little discomfort and the patient did not consider herself abnormal. In 1924 such attacks became more frequent and in 1927 they came on even in the summertime. All of the fingers of both hands became cold and numb and went through the various color changes. Puffiness and cyanosis persisted between the attacks and sore spots appeared beneath the nails at the tips of the fingers. The feet also became cold and numb at the times of the attacks but the major difficulty was that in the hands.

On examination the fingers were found to be cyanotic and somewhat swollen. There was marked atrophy of the nails and roentgenograms

showed atrophy of the distal ends of the distal phalanges. Normal pulsations were present in the peripheral arteries. B. P. 132/84.



Roentgengram showing bone atrophy in the distal ends of the terminal phalanges.

On September 20th, using ether anesthesia, the stellate and the second thoracic sympathetic ganglia on the left side were resected by Dr. Kolodny. Examination on the day following the operation showed that the left hand was of a pink color, warm and dry, while the right hand continued to be cold, cyanotic and moist. A Horner's syndrome was present on the operated side. Symptoms of pneumonia became evident at this time. X-ray pictures which were taken on September 22nd showed a pneumonic process in the left base, a widening of the hilus shadows, and some increased density at the left apex in the region of the rib resection. At this time the temperature was 102.6° F. and the leucocyte count was 16,800. Though the pneumonic symptoms cleared up in about ten days the febrile course continued for many weeks. There was some infection in the operative wound but this did not seem sufficient to account for the reaction the patient was having. X-ray examinations of the chest on October 2nd and October 4th showed a persistence of the increase in the hilus shadows. At this time the temperature was running about 101° F., respiration 20, and pulse 90. For three weeks following this the temperature averaged about 101° F. It was five weeks before the patient was afebrile. The clinical course and the X-ray findings led to the diagnosis of mediastinitis. During the seventh week following the operation the temperature became normal and the patient entirely recovered from the mediastinitis.

During the period that the patient was under observation (three months) the improvement in

the circulation in the left hand continued to be evident and there was relief from the former symptoms in that area.

- (1) Kuntz, Albert. Arch. Surg., 1927, XV, 871-877.
(2) Adson and Brown. Surg., Gynec. & Obst., 1929, XLVIII, 577-602.

Announcements

COLLEGE OF MEDICINE

Post Graduate Courses in Medicine and Surgery

The courses in medicine and surgery which have been offered by the College annually since 1928 will be given again this year from June 3rd to June 6th. As already announced, the exercises in medicine are given in cooperation with the Iowa Heart Association and the Iowa Tuberculosis Association. The course in surgery is conducted by the Department of Surgery with the cooperation of the Departments of Obstetrics and Gynecology, Orthopedics and Urology.

Instruction in the courses described will be given in the main by members of the faculty of the College of Medicine and by members of the staff of the State Sanatorium. In addition, however, the College is fortunate in having secured as guest-teachers during the period of the courses, the following:

Dr. Campbell P. Howard, Professor of Medicine, McGill University Faculty of Medicine, Montreal, Quebec.

Dr. George E. Fahr, Professor of Medicine, University of Minnesota, Minneapolis, Minnesota.

Dr. Gatewood, Assistant Clinical Professor of Surgery, Rush Medical College, Chicago, Illinois.

Dr. William S. Middleton, Associate Professor of Medicine, University of Wisconsin, Madison, Wisconsin.

Dr. A. A. Pleyte, Wisconsin Anti-Tuberculosis Association, Milwaukee, Wisconsin.

Dr. J. Carl Painter, Superintendent of Sunny Crest, Sanatorium, Dubuque, Iowa.

Dr. C. F. Taylor, Superintendent of the State Sanatorium for Tuberculosis, Norton, Kansas.

The course in medicine will concern diseases of the heart and lungs. The mornings will be spent at the University Hospital and will be devoted to ward rounds and an amphitheatre clinic. The afternoon sessions will be given over to diseases of the lungs and will be held at the State Sanatorium for Tuberculosis at Oakdale.

The surgical course has been planned to consider the various fields in a comprehensive fashion. The diagnosis and indications for treatment of surgical conditions will be emphasized and special consideration will be given to certain newer diagnostic methods. Round table conferences, ward rounds, and study and operative methods will comprise a part of the program of each day.

The evening addresses will be as follows:

June 3:

Subphrenic Abscess—Dr. Gatewood, Assistant Clinical Professor of Surgery, Rush Medical College, Chicago.

The Differentiation of Coronary Thrombosis From Upper Abdominal Lesions—Dr. W. S. Middleton, Associate Professor of Medicine, University of Wisconsin, Madison.

June 4:

(In conjunction with the Johnson County Medical Society)

Some Epidemiological and Therapeutic Aspects of Acute Lobar Pneumonia—Dr. Campbell P. Howard, Professor of Medicine, McGill University Faculty of Medicine, Montreal, Quebec.

June 5:

The Significance of Systolic Apical Murmurs—Dr. George E. Fahr, Professor of Medicine, University of Minnesota, Minneapolis.

The courses are open only to registered physicians of Iowa. The number is limited to twenty-five in Medicine and fifteen in the section in Surgery. Applications received after the quota is filled will be placed on file to receive preference in subsequent courses.

Applications and all requests for information should be directed to the secretary, Bruce E. Mahan, Director of the Extension Division, State University of Iowa, Iowa City, Iowa.

Case Report

RETRO-PERITONEAL CYST*

FRANK S. HOUGH, M.D., Sibley

On October 18, 1929, by confrere, Dr. L. H. Heetland, inducted a woman into Sibley Hospital, furnishing the following history: Mrs. S., age 45, residence Ellsworth, Minnesota, mother of several children, had noticed first about one year ago a lump high up in left flank. From this time the growth enlarged steadily extending from left hypochondrium down into left iliac with a smaller knob-like projection extending into left pelvis. She had not consulted a physician until about two months ago when she "made the rounds" landing finally with him. Every physician who had examined tumor considered it some pelvic tumor, either connected with uterus or ovary, being fooled by the lower knob-like pole referred to. To us these diagnoses seemed doubtful from the clear cut history. There was no mobility, and, filling the left flank, as it did, we entertained several possibilities. If the woman had been more debilitated we would have suspected a large sarcoma, or other malignant neoplasm. She

seemed in fairly good general health, constipated at times, but well nourished. Except for her constant worry she was quite comfortable. There was no great amount of pain. She said, however, she had had more or less distress about a year ago.

A median incision was made from umbilicus to pubes, and, when it was found that the mass could not be brought to the surface, a transverse incision through left rectus was made, disclosing the fact that the tumor was retro-peritoneal and retro-colic, its anterior surface being enveloped by the posterior layer of the transverse meso-colon and its extension, as the peritoneal covering of the outer side of the descending colon. In its downward growth it did not penetrate and separate the layers of the meso-sigmoid. The sigmoid colon was crowded down into left pelvis. The tumor filled the left flank. The descending colon, which was attached to the mesial border of its anterior surface was well to the right of the umbilicus. To facilitate description I will employ first person singular. An incision was made on front face of tumor through its peritoneal investment parallel with, and two inches to the left of, the descending colon. The peritoneum, having been separated from the anterior surface of the cyst, the dissection proceeded downwards, over, around and behind, the knob-like pole in the pelvis. The peritoneum was adherent, but I had no serious difficulty until I reached a place high up on the posterior surface, corresponding to a site where the tail of the pancreas should be. Working around circumferentially it seemed as if I had isolated a pedicle in this region. I made no attempt to blindly clamp or ligate this supposed pedicle, but decided the only comparatively safe thing to do, was to gently tear the cyst loose from its moorings. There was no pedicle—no leakage—no bleeding. The mass was easily delivered. On inspection of the cyst, at the site where it was so adherent, where the supposed pedicle might have been, there was an area about the size of a dollar of fatty peritoneum attached, and this was, assumably, a small portion of the posterior layer of the transverse meso-colon. Later, upon consulting Gray's Anatomy this seemed to be quite probable. A quotation from Gray, at this juncture is illuminating: "The anterior layer of the transverse meso-colon covers part of the anterior and the superior surface of the pancreas. The posterior layer of the transverse meso-colon covers the rest of the anterior and also the inferior surface. The posterior surface of the pancreas is uncovered by peritoneum."

The cyst was monolocular. It was sent to Dr. Bell of the University of Minnesota for patho-

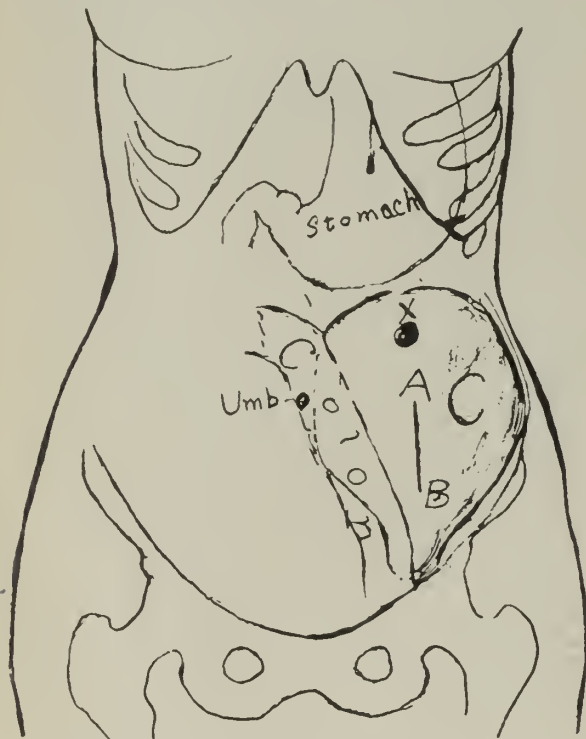
*Reported at a meeting of the Osceola County Medical Society, February 28, 1930.

logical examination and diagnosis. The report is here appended.

In the absence of Dr. Bell I am reporting on the cyst from your patient, a woman 45 years old.

Sections show a dense fibrous lining with slight evidence of inflammation. There is no epithelial or endothelial lining to the cyst. In no section is there any evidence of pancreatic tissue. You mention that this cyst arose lateral to the colon. The ordinary pseudocyst of the pancreas, which this might be, may present above the stomach, between the stomach and the transverse colon, or below the transverse colon, but in one the size of this one, the ordinary relations might not obtain. I do not believe I can come any closer to an absolute diagnosis on this cyst.

The patient made a rapid recovery. A parotitis (left side) developed within 36 hours, responding to topical application of ice with complete subsidence within two days.



X—Indicates the point where the cyst was presumed to be pedunculated.

C—Indicates position of cyst behind the splenic flexure of the colon.

A-B—Indicates the incision in the peritoneal investments.

UNITED STATES CIVIL SERVICE EXAMINATIONS

The United States Civil Service Commission announces the following open competitive examinations:

Senior Medical Technician, \$2,000 a year.

Medical Technician, \$1,620 a year.

(a) Bacteriology.

(b) Roentgenology.

Applications for senior medical technician and medical technician must be on file with the Civil Service Commission at Washington, D. C., not later than May 7, 1930.

The examinations are to fill vacancies in the posi-

tions of laboratorian and assistant laboratorian in the United States Veterans' Bureau, and in positions requiring similar qualifications.

The entrance salaries are \$2,000 a year for senior medical technician, and \$1,620 a year for medical technician. Higher salaried positions are filled through promotion.

Competitors will not be required to report for examination at any place, but will be rated on their education and training, and on their experience.

Full information may be obtained from the United States Civil Service Commission, Washington, D. C., or from the Secretary of the United States Civil Service Board of Examiners at the postoffice or custom house in any city.

UNITED STATES CIVIL SERVICE EXAMINATIONS

The United States Civil Service Commission announces the following open competitive examinations:

Chief Nurse (Indian Service)

Head Nurse (Indian Service)

Graduate Nurse (Various Services)

Graduate Nurse, Visiting Duty (Various Services)

Graduate Nurse, Junior Grade (Various Services)

Applications for the above-named positions must be on file with the Civil Service Commission at Washington, D. C., not later than June 30.

The examinations are to fill vacancies in the Departmental Service, Washington, D. C., and in hospitals of the Veterans' Bureau, the Public Health Service, and Indian Service throughout the country, also at the Federal Industrial Institution for Women, Alderson, W. Va.

On account of the needs of the service, papers will be rated as received and certification made as the needs of the service required.

Competitors will not be required to report for examination at any place, but will be rated on their education, training, and experience.

Full information may be obtained from the United States Civil Service Commission, Washington, D. C., or from the Secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city.

RABIES IN CALIFORNIA

It has been stated by the California State Department of Public Health that the control of rabies becomes a greater problem each year. In each of the last two years, nearly 800 cases in animals have occurred, and up to February 8 of this year, ninety-four cases have been reported. In the ten year period ending in 1929, forty-nine human deaths have occurred from this disease. Rabies can be contracted not only by being bitten by a rabid dog, but also through any contact with animals suffering from rabies, since the infective agent gains entrance through wounds in the skin. The problem of the control of this disease is a most important one.

STATE HEALTH COMMISSIONER'S PAGE



D. C. Stulman, M.D.



It is with regret that the death of Dr. Henry Albert, Commissioner of Health of Iowa, is announced. An operation for appendicitis was done on Wednesday, April 2, 1930, following an illness of 10 days. Death occurred on Sunday, April 6, 1930.

Dr. Albert was appointed head of the State Department of Health in 1926, returning to his native state from Reno, Nevada, where he was director of the State Hygienic Laboratory. He was formerly Professor of Pathology and Bacteriology at the University of Iowa. He was 52 years of age.

Under his wise and expert leadership, the State Department of Health was developed as it had never been before. New divisions of Epidemiology and Preventable Diseases, Law Enforcement, Public Health Nursing and Nursing Education were created within the Department through his guidance.

Gifted with infinite patience, blessed with wisdom and farsightedness, endowed with wide vision, a friend to all, a gentleman always, courageous ever, intensely interested in all that pertained to the welfare of the state, he was an inspiration to all who were closely associated with him and his loss will be felt most keenly by all.

The most prevalent diseases during the past month have been measles, smallpox, scarlet fever, mumps and chickenpox, in the order named.

MEASLES

It is expected that with the 2,435 cases of measles reported for the month that the peak of the epidemic predicted by the Department last fall has been reached.

SMALLPOX

One hundred twelve more cases of this disease were reported last month than for the previous month. With 1,263 cases reported during the first quarter of the year, the total cases for 1930 bids fair to be larger than any other year.

SCARLET FEVER

One thousand two hundred twenty-five cases of scarlet fever have been reported during the first three months of 1930. The disease is mild in most instances, and complications are relatively rare. It is often difficult to arrive at a diagnosis by reason of the atypical symptoms.

FIFTH ANNUAL PUBLIC HEALTH CONFERENCE

The most successful Public Health Conference in the history of Iowa took place at Des Moines, April 3 and 4, 1930. This Conference was held under the joint auspices of the Iowa Public Health Association and the State Department of Health.

Twenty-one papers were presented, covering subjects of importance and interest to Public Health workers. The outstanding feature was a paper on Public Health Administration by Dr. Alan J. McLaughlin of the U. S. Public Health Service.

Dr. Wm. F. King, of Indiana, explained in detail the purposes of the White House Conference Planning Committee of which he is a member.

Dr. Earl G. Brown, Secretary of the Kansas State Board of Health, presented a fine paper on "Accident Prevention."

Dr. P. W. Covington of the International Health Board, Rockefeller Foundation, spoke on "The Importance of Promoting Public Health Work in Rural Districts."

Dr. M. E. Barnes, Professor of Preventive Medicine of the University of Iowa, read a very pertinent paper on "The Training of Health Officers and Nurses."

The paper by Miss Esther Wick, Manchester, Delaware County, on "County Public Health Nursing—Before and After" was especially fine.

One hundred and seventy-four people registered officially and there were about thirty who attended the meetings, who did not register. Among others were ten city health officers, five members of the State Board of Health, and six from outside the state.

The Sixth Conference will be held in Des Moines in 1931.

The JOURNAL of the Iowa State Medical Society

ISSUED MONTHLY

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DAVID S. FAIRCCHILD, Sr., Editor-Emeritus.....Clinton

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OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XX May, 1930 No. 5

RADIO QUACKERY

In a recent editorial in this JOURNAL, attention was directed to the flagrant abuse of radio broadcasting in furthering the most damnable of all quackery—medical quackery. What can be more contemptible than the human vulture who seeks to fatten himself on the carnage of human lives—the inevitable result of medical quackery? The United States postal laws have gone far towards eliminating that most despicable, but frequently financially affluent advertising quack who a few years ago, by the use of purchased mailing lists, blatantly advertised to cure most all maladies to which the human body was subject. It appears that with the advent of this new advertising medium, the radio, our legislators have failed to appreciate, or at least have failed to safeguard against, the evils recognized by the postal laws. Until such a time arrives when the public may be protected from this new form of advertising of quackery, it behooves every physician, or, in fact, every layman who has the alleviation of suffering or the furtherance of human happiness at heart, to become informed relative to this matter and actively combat the evil.

Within the past week, a physician of considerable standing in his community was asked by a layman about the reliability of one J. R. Brinkley, the "gland grafter" of Milford, Kansas, who, we are informed, broadcasts daily from Station KFKB. To my surprise, this apparently intelligent and well-read physician replied that he knew nothing about Dr. Brinkley, and for this reason was in no position to advise his lay friend. I

could not help but wonder what his answer would have been had the question applied to Iowa's own Norman Baker, whose cancer cure is exploited through Broadcasting Station KTNT. Is it not time that we awake to the seriousness of this situation, and attempt to so influence public opinion that the broadcasting either may be purged or purified?

Norman Baker, of Muscatine, Iowa, recently commanded front page space in most of the leading daily and weekly newspapers throughout Iowa, following a report that an attempt had been made on his life by persons who, in his opinion, represent the "medical trust." Many papers featured this item through several editions, some even employing full page space in their magazine sections to report the matter. In many of these reports, doubt was implied (or expressed) that any attempt had been made upon Baker's life. Whether the plan was so intended or not, it would appear that in its operation Mr. Baker secured for himself thousands of dollars worth of advertising which will go far towards promoting the Baker Institute "Founded by Norman Baker whose Mother's untimely death created interest in Life Extension." One cannot help but wonder if Mr. Baker has not permitted a false impression to be freely used by the lay press as a means of establishing a persecution which, in itself, encourages a certain type of interest and confidence.

An investigation conducted by a correspondent of the Des Moines Register indicated that the Baker cure for cancer consists principally of a "hypodermic injection of some mysterious fluid," more recently augmented by a powder treatment for external cancer. Through Baker's own magazine, "TNT," Baker states as his established slogan: "Cancer is conquered." At another time it is stated: "Mr. Baker's investigations and observations have proved that the worst cases of cancer can be permanently cured." The statement also appears that "Malignant cancer in various stages, especially in very advanced stages, and in various parts of the body, responds quickly to the treatment and disappears very rapidly leaving healthy, normal tissue in the place of cancerous tissue." Again, in the March, 1930, issue of TNT the statement is made: "This does not mean that all cases of cancer can be cured, but we believe that cases which have not advanced to the state where no worth while vitality remains can be cured, or at least benefited so as to extend the life of the patient many, many years." This last quotation is reproduced since it indicates to the writer's mind that the campaign or publicity, which has been largely sponsored and directed by the American Medical Association—"the giant medical trust"—

has at least caused Baker and his associates to be less expansive in their claims.

Having been persecuted, as Mr. Baker claims, by the agencies of organized medicine, and this persecution having extended even to the point of an attack made upon his life, it is somewhat surprising that this same martyred individual should seek the protecting cloak of our State Medical Society in order to bring before the public the remarkable work of the Baker Institute "Dedicated to the advanced treatment of nutritional diseases and life extension." The Society will forego the benefit to be derived from active participation in the program suggested by Mr. Baker in his letter of April 25th, directed to the Secretary of the Iowa State Medical Society:

Secretary,
Iowa State Medical Society,
Des Moines, Iowa.

Dear Sir:

Will you please, during your conference at Marshalltown, May 14th, 15th and 16th, arrange a place on your program, regarding the subject of cancer, bringing to your conference, cancer patients; also advise if possible at that time, to bring patients from whom cancer is about to be removed, and have same removed at the conference.

A matter of this kind, which should prove very interesting, should be held in some large building at Marshalltown, with a large seating capacity, so the public also might see the test. If you are interested in anything of this kind, we would like to hear from you, and will be pleased to make arrangements for same.

Yours truly,

BAKER INSTITUTE.

Per N. Baker.

The investigations made by the American Medical Association, and confirmed and augmented by the investigation of the Des Moines *Register*, revealed "many deaths from cancer among Baker's clientele; it revealed the menace of Bakerism to be his vicious influence against modern scientific diagnosis and treatment and modern public health work; it brought to light a Baker who trims his claims to the winds that blow; finally, it provides a list of associates of Baker, including one J. L. Statler and one Charles H. Gearing, who have prostituted the words 'physician' and 'healer.'"

Does this sad old world after all afford any spectacle so terribly pusillanimous or so completely ignominious as an exposed cancer quack?"

NOTE: The State of Iowa, through Attorney-General John Fletcher, applied for an injunction in the Muscatine County District Court on May 6th to restrain Baker and his associates from the unlawful practice of medicine, and ultimately seeking to close the Norman Baker Institute.—*The Des Moines Register*, May 7, 1930.

STATE SURVEY OF HANDICAPPED CHILDREN

Through the office of the Superintendent of Public Instruction we have been advised that this Department is now engaged in preparing a census

of the physically and mentally handicapped people in the State of Iowa between the ages of five and twenty-one, as directed by the last session of the general assembly. This survey is to include both those in and out of school. County superintendents of schools will organize the teachers in each county to list those known to be defective, and the reports will be based upon the local school district as a unit. The director of this work is very anxious that this list shall be as complete as possible, and that the data assembled shall be based on more than the opinions or observations of the teacher.

With this in mind, an appeal has been made to the members of the Iowa State Medical Society to assist in the program, since it is realized that through the activities of the Society and those of its individual members, distinct contributions to the solution of many problems of the school child have been made. They further realize that the members of the State Society are prepared and equipped to determine the extent of physical defectiveness much more accurately than a lay person. It is hoped that the school teachers and superintendents will have the cooperation of the medical profession in this work in making the returns accurate and comprehensive, and that physical examinations may be secured when required through the members of organized medical units. Mental diseases should be reported as well as physical ones in this survey. They will be given special listing and classification.

Specific instructions as to the nature of the handicaps to be reported and how each type is defined in this census are now being sent to all schools through county superintendents and physicians. Those interested in the matter may receive full instructions from this source. Further information relative to the program may be secured from the county superintendent of instruction in your county, or by directing your inquiry to the State Department of Public Instruction in Des Moines.

VIENNA SURGICAL CLINICS

The guiding influence to surgical diagnosis and technique to practically all Viennese surgeons, at least of this day, is the seemingly omnipotent presence of that ingenious man, Billroth. His name is always mentioned with reverence, and I have seen the eyes of Von Eiselsberg dimmed by tears as he spoke of his former chief. Professor Eiselsberg, now at the age of seventy, is chief to the First Surgical Clinic, the old Billroth Clinic. Following his many years with the beloved master, Eiselsberg was given the Chair of Surgery at Utrecht Hol-

land, only to return to the Allegememis Kraukenhause, to follow his former chief.

The surgical clinics at the Allegememis are three in number: The first, mentioned above; the second, the former Albrecht Clinic, and now presided over by Professor Hochenegg; the third, which has no regular chief, and is only of minor importance. The great volume of work is carried on by the First and Second Clinics, with the exception of gynecological cases, which are retained by the two Frauen Clinics, Pehams following the teachings of Schauda, chiefly, and Kermaner's who lean towards the master, Wertheim.

The surgical clinics are naturally general in their scope, yet there is a more or less division of material. Von Eiselsberg, on account of his marked work on the thyroid, receives the most of those cases, as he does also the brain and cord surgery. The professor is considered one of the outstanding brain surgeons on the continent, if not of Europe. He was recently given an honorary degree and membership from the Royal College of Surgeons of England for his memorable work in neurological surgery. The Second Clinic draws the rectal and bowel conditions, especially malignancies. Professor Hochenegg has spent years of study on carcinoma of rectum and lower bowel. Stomach work is a little heavier on the First Clinic, but that is to be expected. Bone work is more prevalent with the Second Clinic. This clinic draws practically all of the meniscus injuries, on account of Mandl, who has given considerable attention to knee injuries. On a Monday, during the winter months, it is not unusual to find from one to six persons with "slipped cartilages" appearing for diagnosis and treatment. Skiing is a thrilling and fascinating sport, but it certainly predisposes to knee injuries. Both clinics have their own outpatient and ambulatory sections, and likewise their own septic operating theater and wards. No individual where sepsis is likely to be dealt with, comes in contact with the general theater, its staff or wards.

General technique is essentially the same throughout the Allegememis, and other hospitals in the city, insofar as equipment, anesthetics, sutures, etc., are concerned. Close-fitting cotton gloves are in the majority, though the operator usually has beneath a rubber pair. They appear rather clumsy at first, but this is soon overcome. A marked convenience is noticed in their use when one attempts to handle the slippery bowel. The incidence of infection is no greater by their use. Ligatures are of linen, as are most of the sutures, except the mucosal layer in stomach work and here it is often used. Linen is more economical than cat-gut, and

the gut manufactured on the continent is of poor quality.

Anesthesia is chiefly ether where a general is used. However, a large percentage of the work is performed under local or spinal. The latter is being practiced quite extensively. Finistere, with whom I had the pleasure of association for several months, employs anterior splenic for his stomach work. His technique is excellent, and the results are equally so. Rarely is a post-operative opiate administered, and it is not unusual to find men shaving themselves the second or third day after a stomach resection. Seventy cc. of a half per cent acidulated novocaine solution is used for injection in normal individuals. If debilitated, a quarter-per cent is used. Anesthesia results immediately, and lasts for three hours. The manner of injection is as follows: Abdominal wall is opened under infiltration method. Gentle traction is made on stomach with right hand. At this period, a few whiffs of nitrous oxide is often given. The left hand, which has been bared, is passed downward over the gastro-hepatic omentum, until the hepatic artery is felt crossing the midline. The index and middle fingers separate the vena, cava and aorta by displacement to right and left. The right hand now passes the needle downward between the fingers to the bony spine, and then is slightly withdrawn. A small amount is injected, then gentle aspiration to determine if blood is present. If not, the required amount is injected, but if blood is present, the needle is withdrawn, and the block method used on the stomach.

The marked advancement in use of various forms of local anesthesia is due largely to the lack of trained anesthetists. The trained anesthetist is conspicuous by his absence, chiefly, I presume, because of the inability for remuneration, along with the fact that ether has been more or less recognized as fool-proof in reasonably intelligent hands. For my own part, I would much prefer their local to the general administration.

Insofar as instruments are concerned, I believe our own makes are of a neater pattern and handier to manipulate. However, results are what everyone is looking for, and if it can be obtained with a round face mask instead of a square one, or a straight blade instead of a curved one, we should not quibble.

N. BOYD ANDERSON, M.D.
Des Moines, Iowa

DISCUSSION OF BOVINE TUBERCULOSIS TEST

Editor's Note: At the 1930 annual meeting of the Iowa Tuberculosis Association held in Sioux City last month, Dr. W. R. Brock of Sheldon, in

discussing a paper on the Relation of Bovine Tuberculosis to Public Health, pointed out the responsibility of the public and particularly the medical profession in this work with such clarity that the following extract is here reproduced:

There is no doubt in the minds of the world's best students today that bovine tuberculosis has been transmitted to man and a considerable percentage of human beings who have had tuberculosis in the past received this disease directly or indirectly from cattle; and probably thousands, or even millions of people, in the near future will be affected by bovine tuberculosis. I do not know why so many of our farmers and keepers of herds object to having their cattle given the tuberculin test.

Perhaps our campaign of education has not been clear to them, or they have not been properly paid for the cattle condemned after the positive reaction from the test. In several counties in Iowa there have been injunctions granted through the courts against state officials testing cattle for tuberculosis. There is something radically wrong, or these injunctions would not be granted. All cattle ought to be tested since this provision is so important for the protection of public health. The public should stand its full share of the cost and not force the farmer to bear more than his part of financial loss when cattle are condemned.

The judge in Fayette county has recently denied an injunction against the tuberculin test. No doubt similar decisions will be made in other counties soon. But let us hope that these difficulties will be settled, first on behalf of public health and then equitably to all parties financially concerned. Public health demands that all milk should be pasteurized before consumption whether as milk, cream, butter or cheese. This demand should apply to a man who has only one cow furnishing milk for his own home or the home of his neighbor, and on up to the largest dairy in the country.

Milk subjected to 145 degrees F. for a period of thirty minutes is safely pasteurized, for this process kills all the bovine tuberculosis germs present. This heating does not hurt the taste nor destroy the food value of milk. It may injure some of the vitamins which can be fully replaced by adding orange juice or cod liver oil, when feeding growing children or infants.

Why is it so difficult for us to do things to safeguard the public health and to care for the sick and helpless? Why is it that our fine professional brethren from Minnesota (and especially Dr. S. A. Slater) have told us in this connection today that Iowa needs four hundred beds more

for tuberculosis patients? It is because where Iowa is spending dollars, it should be spending thousands of dollars to establish and maintain a healthy and vigorous people. It does not seem so difficult to raise appropriations for other, fool, projects.

I understand it is proposed to appropriate \$100,000,000 to throw into the muddy waters of the Missouri River for navigating purposes. I fancy that I can see thousands of submarines passing to and fro under this great desert of ice on the Missouri River, carrying the farmer's grain to market while the railroads and the truck companies go out of business.

What would \$100,000,000 do for public health? It would build five hundred sanatoria and general hospitals in this great Missouri valley and endow them with running expenses for all time. This project too, ought to appeal to President Hoover and his idle men and factories.

Dr. Meyers, of Minneapolis, in his splendid address here, today, has indicated that there are thousands of children with diseased chests, undetected by parents and physicians. This is a tragedy. I see a thousand, thousand little hands stretching out to this convention from the great army of Iowa babies and children, asking for purer food, better and purer meats, and more wholesome and purer milk and its products.

Will this convention hear and answer their cry? I believe it will and "When the harvests of the fields, the cattle of the hills and the ores of the earth shall have been weighed, counted, and valued" we shall turn from them all to first crown with glory that state that shall be first in promoting health, and more health, and still more health, amongst its people.

THE AMERICAN ASSOCIATION FOR THE STUDY OF GOITER

The 1930 Annual Meeting of the American Association for the Study of Goiter has been announced for June 10 to 12, inclusive. The first two days of the meeting will be held in Seattle, and the third day's meeting will be held in Tacoma, Washington, and Mount Rainier.

Thirty-four distinguished essayists will discuss the problem of goiter and allied conditions, with suitable illustrative clinical presentations. The president of the association, Dr. E. R. Arn, will use as his theme, "Auricular Fibrillation Associated with Hyperthyroidism."

A detailed program and full information relating to the meeting may be obtained by addressing James Tate Mason, M.D., 1115 Terry Avenue, Seattle, Washington.

SOCIETY PROCEEDINGS

Cerro Gordo County

The Cerro Gordo County Medical Society had its regular meeting Tuesday, April 15, at the Hotel Hanford. Following the six-thirty dinner a short business meeting was held after which a scientific paper, Diagnosis on Hyperthyroidism, was presented by A. C. Davis, M.D., of Rochester. The paper was discussed by Drs. B. R. Weston and C. M. Franchere of Mason City, and Dr. A. B. Phillips of Clear Lake.

There were thirty-one doctors present, which was a good attendance considering the weather. Drs. J. O. Eiel and W. S. Osborne, of Osage, and Dr. R. E. Culbertson, of St. Ansgar, were visitors. We were glad to have these men with us and hope to have more with us at our meetings which are the third Tuesday of each month. Our next meeting will be on Tuesday, May 20.

T. E. Davidson, M.D., Secy.

Dallas-Guthrie Society

Thursday, April 17, the members of the Dallas-Guthrie County Medical Society met in regular session at Panora. After a noon dinner the following two papers were presented: The Migraine-Epilepsy Syndrome, Statistical Review of Heredity, F. A. Ely, M.D., Des Moines, and The Proposed Changes in the Constitution and By-Laws of the Iowa State Medical Society, John H. Peck, M. D., Des Moines, president of the State Society.

Decatur County

The Decatur County Medical Society met in Dr. B. L. Eiker's office, Friday, March 21, at 8:00 p. m. The following members were present: Drs. Sixbury, Greer, Reed, Rogers, Hills, Eiker, Coontz, Wailes and Bowman. The scientific program consisted of two papers: Acidosis in Acute Infections, J. S. Coontz, M. D., Garden Grove, and Vitamines, B. L. Eiker, M.D., Leon.

Floyd-Chickasaw Counties Joint Meeting

The members of the Floyd County Medical Society were hosts at a joint meeting of the Floyd and Chickasaw County Medical Societies held in Charles City, Thursday, April 24. After a six o'clock dinner, Dr. William A. Rohlf, president-elect of the Iowa State Medical Society, and Mr. Vernon Blank, managing director, spoke on State Society activities.

Jackson County

A business meeting of the Jackson County Medical Society was held at the Community Room of the First National Bank in Maquoketa, on Wednesday, April 30.

Johnson County

The regular monthly meeting of the Johnson County Medical Society was held in the American Legion Building, April 2, beginning with a six o'clock dinner after which the following scientific program was presented: Reduction of Fractures Under Local Anesthesia, George H. Scanlon, M. D., discussion opened by C. J. Berne, M. D.; Diagnostic Importance of Visual Defects in Neurology, C. Van Epps, M.D., discussion opened by C. S. O'Brien, M.D.

Linn County

James M. Patton, M.D., of Omaha, was the speaker of the evening at the regular monthly meeting of the Linn County Medical Society held in Cedar Rapids, Thursday, April 17. Dr. Patton used as his subject, The Significance of Blind Spells.

Mahaska County

Members of the Mahaska County Medical Society entertained physicians from Keokuk and Marion Counties, Ottumwa, Des Moines and Iowa City, Thursday, April 24, at a dinner at the Downing Hotel in Oskaloosa. The following scientific program was presented: Modern Treatment of Goitre, C. B. Luginbuhl, M. D., Des Moines; Bronchoscopy, D. M. Lierle, M.D., Iowa City; and Dr. Frederick A. Hecker spoke upon his experimental work on cancer, using white rats. Dr. Hecker's talk was illustrated with lantern slides.

Marion County

The Marion County Medical Society held its regular April meeting at the courthouse in Knoxville, Tuesday evening, April 8. A most interesting and instructive program was rendered by visiting physicians. H. B. Henry, M.D., of Des Moines, spoke on The Psychoneurotic State, and Samuel T. Gray, M.D., of Albia, dealt with the subject, The Basic Science Law.

Several distinguished guests were present and at the close of the program, after a brief introduction by President Payne, each in turn responded with a few pertinent remarks. Included in this number were: Dr. John H. Peck, Des Moines, President of the Iowa State Medical Society; Dr. Channing G. Smith, Granger, Chairman of the Council; Dr. Samuel T. Gray, Albia, Secretary of the Council; Mr. Vernon D. Blank, Des Moines, Managing Director; and Dr. C. J. Scott, Knoxville, Secretary Iowa Veterinary Medical Society.

A luncheon and social hour concluded the meeting. Twenty-five members and guests were in attendance.

C. S. Cornell, M.D., Sec'y.

Polk County

Major Ferenbaugh and the other officers of the medical staff at Fort Des Moines were hosts to the Polk County Medical Society for their April meeting held at the Post Hospital, April 29. A buffet dinner, super-excellent in quantity and quality, was served to the seventy-five members and visitors. The Post band favored the group with a stirring concert before and during a part of the dinner.

The business session followed immediately after the dinner. Walter D. Abbott, M.D., was unanimously voted into membership in the society. The application of Robert L. Fenton, M.D., was presented to the society and referred to the Board of Censors. The following resolutions on the deaths of Dr. David Sturgis Fairchild and Dr. Henry Albert were read by Dr. Walter L. Bierring:

David S. Fairchild, A.M., M.D., F.A.C.S.

In the death of David Sturgis Fairchild on March 22, 1930, the Polk County Medical Society mourns the loss of one of its oldest and most distinguished members.

As Professor of Pathology in the College of Physicians and Surgeons (Drake University Medical School) in 1882, and later Professor of Surgery and Dean of the Medical Faculty, he influenced during twenty-five years the highest purposes of medical education in this community.

While in residence at different periods, away from Des Moines, he always maintained his active membership in this Society, being a faithful attendant at meetings as well as a frequent contributor to its programs.

His familiarity with medical traditions in Iowa, and the development of medical science during the past half century, with the added flavor of the cultured gentleman, formed an attractive personality that left its impress upon everyone with whom he came in contact.

The fellow members of Doctor Fairchild feel a fraternal pride in sharing the many honors and distinctions bestowed upon him during a long and useful life and the legacy left to Iowa Medicine by his high ideals and distinctive achievements.

The members of Polk County Medical Society beg to convey to the family of Doctor Fairchild their sincerest expressions of condolence and sympathy.

The Committee—

Walter L. Bierring
Granville N. Ryan
Addison C. Page

Henry Albert, M.S., M.D.

In the untimely death of Dr. Henry Albert on April 6, 1930, the Polk County Medical Society mourns the loss of one of its most valuable and enthusiastic members.

Although affiliated with the Society for less than four years, his faithful attendance at meetings and personal contact with individual members made this association seem much longer.

In his official capacity as State Health Commissioner, he acquired a knowledge of health conditions and disease prevalence in this community and the

State, that added greatly to the value and interest of his frequent contributions to the Society programs.

His discussions were characterized by careful preparation and presented with a facility of expression that indicated his orderly mind and background of rare scientific training.

The fellow members of Dr. Henry Albert in the Polk County Medical Society desire to record this appreciation of his fine fellowship, scholarly attainments and beneficent contributions to the cause of public health in Iowa and the general advancement of scientific medicine.

With this is further conveyed an expression of sincerest sympathy to his devoted wife in her great bereavement.

Committee—

Walter L. Bierring
John H. Peck
Fred Moore

The new rules and regulations of the Des Moines Academy of Medicine and Polk County Medical Society were unanimously adopted in their entirety to replace the old constitution and by-laws. A formal vote of thanks and appreciation was extended to the Post Command and the medical staff, Colonel Sirmyer then welcomed the society and expressed his sentiment toward the medical profession in very complimentary terms.

The scientific program was well prepared and carefully presented. Drs. F. O. Woodward and O. J. Fay presented a joint lecture, illustrated by slides and charts, and a paper, on the subject of Brain Concussion in Compensation With Anatomical Demonstration of the Brain. An extended and spirited discussion ensued. Dr. H. W. Dahl delivered a lecture, illustrated by slides, on The Roentgen Appearance, Diagnosis and Pathology, of Some Uncommon Cases of Bone and Joint Lesions.

Page County

Members of the Page County Medical Society met Thursday, April 24, in Shenandoah, for a six-thirty dinner at the Hotel Delmonico, after which they listened to Walter L. Bierring, M.D., and Daniel J. Glomset, M.D., both of Des Moines, in a discussion of the diseases of the blood and blood vessels. Physicians from Red Oak, Sidney and Hamburg were visitors at the meeting.

Palo Alto County

The Palo Alto County Medical Society held its regular meeting on April 3, at the Kermooore Hotel in Emmetsburg. After a dinner together followed by a discussion of Medical Ethics and Economics, a paper was given by P. O. Nelson, M.D., of Ayrshire. His topic was Growth and Development of Diabetic Children Before and During Adolescence. Nine of the thirteen doctors of the county society were present.

H. L. Brereton, M.D., Sec'y.

Scott County

G. H. Hansmann, M.D., of the Department of Pathology, University of Iowa, furnished the scientific program for the members of the Scott County Medi-

cal Society at the regular meeting which was held in Davenport, Tuesday, May 6. Dr. Hansmann used as his subject, Neoplasms From the Envelopes of the Central Nervous System.

Washington County

The April meeting of the Washington County Medical Society was held in Washington, April 1, with Paul A. White, M.D., of Davenport, the principal speaker of the evening. His subject was Considerations Regarding Hyperthyroidism, Post-operative Results in One Hundred Cases. The meeting closed with a luncheon served to the eighteen members present.

Webster County

On Tuesday evening, April 22, the Webster County Medical Society met in the classroom at St. Joseph's Mercy Hospital. The president introduced as the speaker of the evening, A. C. Davis, M.D., of the Mayo Clinic at Rochester.

Dr. Davis gave a very interesting and practical paper on Hyperthyroidism, differentiating between the various types. Following the paper there was a liberal discussion. The meeting was well attended by local physicians and there were nineteen visiting doctors from surrounding counties.

John C. Shrader, M.D., Sec'y.

Woodbury County

The regular meeting of the Woodbury County Medical Society was held at the Elks Club, Tuesday, April 29, with over forty members present. Dr. John Henkin reported concerning the legality of appointing an osteopathic physician as a county physician. The attorney general reported that such action was illegal. After considerable discussion it was voted that the president and secretary of the society be appointed to ask of the attorney for the Board of Supervisors that they refrain from paying any public money to an osteopathic county physician, such being illegal.

It was moved and amended and passed that our delegates to the State Society be instructed to cordially invite this society to hold its 1931 meeting in Sioux City, and to use their best efforts to so induce them, and failing in this to offer the invitation for 1932.

Dr. Louis Buie, of the Mayo Clinic, then gave an illustrated talk, the title of which was What the General Practitioner Should Know About Proctology. It was most instructive and interesting and much appreciated. Mr. Griffith, representing the Petrolagar Company, showed one film on motility of the alimentary tract, this film being put out by the physiological laboratory of the University of Chicago.

Roscoe Jepson, M.D., Sec'y.

PERSONAL MENTION

Dr. Otis Wolfe has just returned to Marshalltown from a two months' visit with Dr. Barraquer at Barcelona, Spain. He also attended the fiftieth anniversary meeting of the Ophthalmological Society of the United Kingdom at London.

Dr. Grover C. Conyers, formerly of Tennessee, has replaced Dr. E. B. Munier, as Assistant Physician at The Retreat in Des Moines. Dr. Conyers was overseas during the World War with Base Hospital No. 13 under Dr. Dean Lewis and before entering the field of psychiatry, was an assistant in the Department of Anatomy, University of Tennessee College of Medicine.

Dr. Roscoe Jepson, of Sioux City, has recently been named as a police surgeon by the Public Safety Commissioner.

Dr. Ben G. Broghammer was appointed city physician of Cedar Rapids, Thursday, April 17.

Dr. M. J. Kenefick spoke before the Algona Kiwanis Club, Thursday, April 17, on the Sterilization of the Unfit.

Dr. and Mrs. O. Evald Olson are returning to Red Oak from Wahoo, Nebraska, where they have been located for several months owing to the illness of Dr. Olson. He is resuming his practice.

Dr. George B. Crow, of Burlington, addressed the Kiwanis Club at its regular noon luncheon at the Hotel Burlington, Thursday, April 24. He spoke upon the subject of Leprosy, relating many of his personal experiences in treating the disease, which he encountered while in charge of a colony of lepers on the Island of Guam. Dr. Crow illustrated his talk with motion picture slides.

Dr. and Mrs. Walter Anneberg, of Carroll, announce the birth of a son, Allen Dolliver, who was born in St. Anthony Hospital, Saturday, April 26.

Dr. Henry S. Houghton, dean of the University of Iowa Medical School, was the speaker at the regular meeting of the College Club held Saturday, April 26, using as a subject his experiences in China.

Dr. and Mrs. William L. Thompson, of Bayard, have received word that their son, Dr. Harold L. Thompson, has had the Degree of Doctor of Philosophy in Surgery conferred upon him by the University of Minnesota for work done in the Mayo Foundation on the surgery of the stomach.

Dr. Raymond S. Grossman spoke before the Marshalltown Lions Club, Monday, March 31, discussing the relationship between medicine and the general public.

Dr. A. J. Lieber, former city health commissioner, has announced that he will open offices at 322 Flynn Building, devoting his time to the general practice of medicine and surgery.

Dr. H. V. Scarborough, superintendent of the State Tuberculosis Sanatorium at Oakdale, addressed an audience of over 300 people, Thursday, April 24, on

the subject Tuberculosis in the Early Stage. The program was held in connection with National Health Week.

Dr. Albert V. Hardy, of the State University Medical School, is leaving for a year's trip abroad, during which time he will carry on research work in hygiene and preventive medicine in European countries.

Dr. Kenneth C. Peacock, of Sioux City, was elected president of the newly organized Peace Class at the annual spring reunion of Sioux City Consistory, 5, which closed a four day session Thursday, March 27.

Dr. Aaron C. Conaway, of Marshalltown, addressed the Le Grande Parent-Teacher Association meeting during the first week in April. He used as his subject Preventive Medicine, and outlined the history of the fights against virulent diseases such as yellow fever, scarlet fever, smallpox, and diphtheria.

Dr. and Mrs. H. A. Minassian, of Des Moines, entertained their son, Dr. Julian M. Bruner, of the Mayo Clinic at Rochester, on his recent visit to Des Moines.

Dr. Thomas M. Redmond was elected president of the Monticello Rotary Club at a recent meeting of the new directors. Dr. Redmond was one of the founders of the club, which was organized nine years ago.

Dr. W. Eugene Wolcott, of Des Moines, spoke at the regular Kiwanis Club meeting Tuesday, April 22. He is chairman of the national committee on underprivileged children and has been interested in establishing schools for crippled children who are not able to regularly attend classes in the school room.

Dr. and Mrs. A. Quinton Johnson are leaving Akron and moving to Sioux City, where Dr. Johnson is to be associated with Dr. Samuel E. Sibley.

Dr. Joseph J. Rowan has moved with his family from Dubuque to Greeley, where he will again take up the practice of medicine.

Dr. C. W. Stewart, recently appointed director of the Washington County public health unit, has received a similar appointment from the United States Public health service, according to word received from the State Department of Health.

Dr. L. L. Henson, formerly of Fair Grove, Missouri, has located in Grand Mound.

MARRIAGES

The marriage of Miss Carolyn Christiansen to Dr. Paul H. Beppler took place Monday, April 21, at the home of the bridegroom's parents in Sioux City. Dr. Beppler and his bride will motor to Acosta, Pennsylvania, where they will reside.

UNITED STATES CIVIL SERVICE EXAMINATION

The United States Civil Service Commission announces the following open competitive examination:

ASSOCIATE MEDICAL OFFICER (PATHOLOGY)

Applications for associate medical officer (pathology) will be rated as received by the Civil Service Commission at Washington, D. C., until June 30, 1930.

The United States Civil Service Commission calls attention to the fact that eligibles are required for filling vacancies in positions of associate medical officers (pathology) in the U. S. Public Health Service, at Ellis Island, N. Y., and Detroit, Mich.

The entrance salaries range from \$3,200 to \$3,700 a year.

Applicants must have been graduated with the degree of M.D. from a medical school of recognized standing; and, in addition, must have had at least two years of specialized study or practice in human pathology.

Full information may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city.

UNITED STATES CIVIL SERVICE EXAMINATIONS

The United States Civil Service Commission announces the following open competitive examinations:

SOCIAL WORKER (PSYCHIATRIC) JUNIOR SOCIAL WORKER

Applications for social worker (psychiatric) and junior social worker will be rated as received by the Civil Service Commission at Washington, D. C., until June 30, 1930.

The examinations are to fill vacancies in hospitals of the Veterans' Bureau throughout the United States.

The entrance salaries are \$2,000 a year for social worker (psychiatric) and \$1,800 a year for junior social worker. Higher-salaried positions are filled through promotion.

The duties are to investigate history and environmental conditions of patients; to analyze and submit data to the physician to aid him in arriving at a definite diagnosis and in outlining a course of treatment; to consider, report upon, and treat the social environment to which a convalescent patient may go or be expected to go.

Competitors will not be required to report for examination at any place, but will be rated on their education, training, experience, and on a thesis or publications.

Full information may be obtained from the United States Civil Service Commission at Washington, D. C., or the Secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city.



HENRY ALBERT, B.S., M.S., M.D.
1878-1930

Born Walcott, Iowa, October 11, 1878. Reinbeck High School, 1896. University of Iowa, B.S., 1901, M.S. 1901, M.D. 1902. Professor of Pathology and Bacteriology 1903-1922. Director of Bacteriological Laboratory State Board of Health 1904-1922. Director Hygienic Laboratory University of Utah 1922-1926. Commissioner of Health of Iowa 1926-1930. Sigma Xi 1905; Alpha Omega Alpha 1930. Member Polk County Medical Society, Iowa State Medical Society, American Medical Association, Des Moines Academy of Medicine, American Society of Bacteriologists, Association of American Pathologists and Bacteriologists, American Public Health Association, Association of Provincial and State Health Officers, Iowa Academy of Medicine, American Association for the Advancement of Science.

HENRY ALBERT, M.S., M.D.

An Appreciation

An intimate acquaintanceship of more than thirty years in the relation of student, colleague, and friend, came to a close with the untimely death of Henry Albert, on Sunday morning, April 6th, 1930. In the perspective of these years, the charm of his attractive personality and friendship, devotion to scientific ideals, and all that pertained to the betterment of human welfare, stands out more strongly than ever.

As a student in biology and later in the medical sciences at the University of Iowa, Henry Albert manifested that keen interest in the unknown and desire to learn new scientific truths that marks the spirit of the real investigator. It seemed only natural that the training of Macbride, Calvin, Nutting and Houser, should direct his studies towards bacteriology and pathology, then a virgin field among the medical sciences.

During his senior year in the College of Medicine he served as instructor in pathology and bacteriology, and in 1903 after a year of European study—at the age of twenty-five years—he became professor and head of this department. During the following year, the Bacteriological Laboratory of the State Board of Health was established at Iowa City, and Henry Albert was chosen as the first director. This afforded a distinct opportunity for his remarkable faculties of organization. The diphtheria culture sets, outfits for the Widal test for typhoid, sputum containers and full sets of directions for inaugurating the extensive diagnosis system now in general use, was all devised by him.

The year 1905 marked an important epoch in his life, for on June 10th occurred his marriage to Edith Whiteis, who became a devoted helpmate and shared his domestic happiness of nearly a quarter of a century.

Early in his teaching career, at a time when such an attitude was quite unusual, he expressed his intention to forego the attractions of medical practice, and devote all his energies to the study and teaching of pathology and bacteriology with special reference to preventive medicine and public health. As a teacher he inspired students with a greater interest in the fundamental medical sciences and their particular application in clinical medicine.

A persistent throat affection made it advisable in 1921 to obtain a leave of absence from his University duties and a change of residence to Southern California. Although he recovered rapidly under new climatic conditions, it was decided to prolong his stay in the Pacific Coast region. In 1922 he accepted an appointment as Director of the State Hygienic Laboratory and Professor of Bacteriology at the University of Nevada at Reno, where he remained until 1926 when his native state again made a demand for his services.

With the reorganization of the Iowa State Department of Health in 1926, when all of its activities were placed in charge of a Commissioner of Health, a

unanimous medical profession applauded the wisdom of Governor John Hammill in asking Henry Albert to assume this new responsibility.

His comprehensive knowledge of bacteriology and the infectious diseases, familiarity with Iowa conditions, and the needs of her people, made his appointment particularly fitting and distinctly fortunate for the State as a whole. It is appropriate to recall the words used by Vallery-Radot in his life of Louis Pasteur—"In the field of observation chance comes only to the mind that is prepared."

With his customary enthusiasm he attacked the problem of developing a State Department of Health of foremost rank and commensurate with the needs of the State. During his administration new divisions were added, of epidemiology and infectious diseases, law enforcement, public health nursing and public health nursing education. Further divisions in this department are those of licensure and registration of the different branches of the healing arts, nurses, embalmers, optometrists, podiatrists, barbers, and cosmetologists, as well as those of vital statistics and anti-toxins and serums, all indicating the comprehensive department developed under the direction of Commissioner Albert.

The weekly Health Bulletins and the Health Commissioner's page each month in this JOURNAL, was a means of distributing valuable information to physicians and everyone interested in preventive medicine in Iowa. With his rare tact and understanding, Henry Albert accomplished a harmonious cooperation of all Public Health agencies in Iowa that augers well for the future of our State.

His last public service was the completion of the arrangements for the fifth annual Conference of Iowa Health Officers on April 3d and 4th, and the success of this conference with an attendance of one hundred and fifty health officers and nurses, including Dr. Allen J. McLaughlin, Assistant Surgeon General U. S. P. H. Service, and four other distinguished guests is but another evidence of Henry Albert's unusual organizing ability. This was a strenuous task and without doubt lowered his resistance so that a virulent streptococcal appendicitis snuffed out Life's candle in a few short days. Truly a martyr to duty and the cause of human welfare.

At a meeting in February of the University of Iowa Chapter of Alpha Omega Alpha, Honorary Medical Fraternity, Henry Albert was elected to membership from the Class of 1902, and on May first at a special ceremony he was to have been inducted into this society of medical scholarship.

He passed from our midst at the threshold of still greater opportunities for service, yet measured by its accomplishment his life encompassed far more than the brief span of years would imply.

His happy, sunny nature enlivened every circle in which he moved, and he left a bit of cheer and sunshine all along Life's pathway. The spirit of his fine fellowship will linger with us as long as memory lasts.

Walter L. Bierring.

GEORGE EVANS CRAWFORD, M.D., Ph. D.
(1849-1930)

For the third time during the past sixty days, the medical fraternity of Iowa has been forced into sincere mourning by the death of one of its outstanding members. Dr. George Evans Crawford, former president of our State Society, found relief from mortal suffering on the afternoon of March 27th, closing a long life of outstanding service both to the medical profession and to all humanity.

Dr. Crawford was born in Mount Vernon, Ohio, August 22, 1849. At four years of age, his father moved onto a farm near Marion, Iowa, where his boyhood days were spent. His medical studies began in the office of Dr. H. W. Sigworth, and extended under this preceptor for a period of three years. During the last year of this study, Dr. Crawford was permitted to see patients, fill prescriptions, and assist at operations. Realizing a need for further study he entered the medical school of the University of Iowa in 1873. At the end of one year's study in this institution, he matriculated at the Bellevue Hospital Medical College. This opportunity was the realization of a long-cherished wish upon the part of Dr. Crawford, and by making the most of his opportunities he was able to graduate the following year. No doubt his association with such master teachers as the senior Austin Flint and the master diagnostician, Edward Janeway, had much to do with shaping his medical ends.

In 1877, Dr. Crawford returned to Iowa and began his practice of medicine and surgery at Waubeek, where he remained for four years. Feeling that greater opportunities were offered elsewhere, he moved, in 1881, to Cedar Rapids, where he remained for the balance of his life.

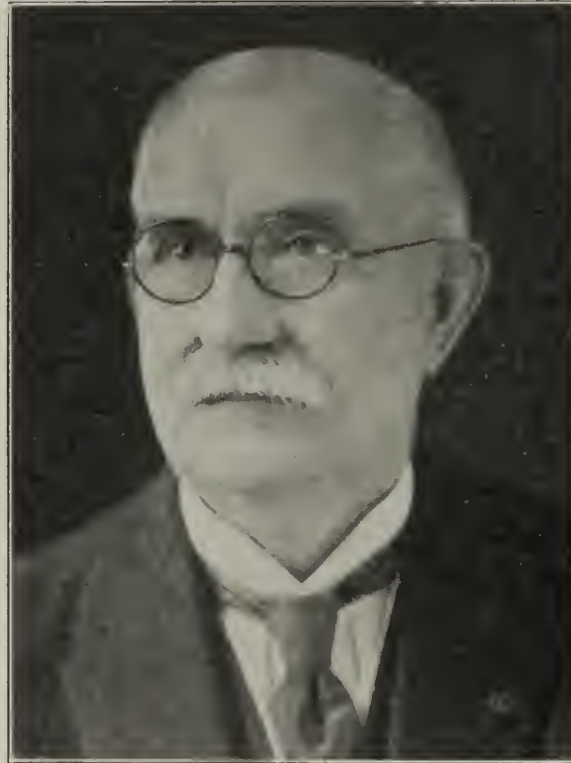
Dr. Crawford was one of the founders of the Cedar Rapids Life Insurance Company with whom he served as Medical Director until the time of his last illness. Finding much of eminent interest in the field of insurance medicine, Dr. Crawford devoted much of his time and attention to this subject, being honored on three successive occasions by the presidency of the

Iowa Medical Directors Association, and on another occasion by the presidency of the Medical Section of the American Life Convention. Later, he became one of the committee of seven from the American Life Convention which was instrumental in perfecting the consolidation of medical information gathered by all the member insurance companies. This is regarded as one of the most progressive steps in the life insurance business during the last twenty years. Dr. Crawford has always maintained a most active interest in his county and state societies, having served the former as president on two occasions, and the latter on one. He has been a councilor of the State Society from his district for the past twenty-seven years.

For recreation, Dr. Crawford enjoyed most the study of philosophy, and some twelve years ago, helped in the organization of the Cedar Rapids Philosophy Club. In recognition of his studies in this field, he was granted the Doctor of Philosophy degree by Coe College a few years ago. His wife, formerly Miss Julia C. Benest, to whom he was married in 1870, together with his three children, Louise Crawford, Drs. J. Lynn and Jennings Crawford, survive him.

For fifty-three years, Dr. Crawford fought humanity's endless battles against disease. He gave freely of his time and energy in this service. In this parting hour, the profession of

which he was so eminently a part bow saddened faces in a sincere realization of our great loss.



GEORGE EVANS CRAWFORD

Herbst, Siegfried E., of Northwood, died April 19, at the age of thirty as the result of spinal meningitis; graduated in 1926 from the State University of Iowa School of Medicine. At the time of his death he was a member of the Worth County Medical Society.

Jackman, Charles Bernard, of Ottumwa, died April 10, at the age of forty-five; graduated in 1913 from the State University College of Medicine. At the time of his death he was a member of the Wapello County Medical Society.

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

A TEXT-BOOK ON ORTHOPEDIC SURGERY—By Willis C. Campbell, M. D., F. A. C. S.—Cloth, \$8.50—W. B. Saunders Company, Philadelphia and London, 1930.

TREATMENT OF SKIN DISEASES IN DETAIL—By Noxon Toomey, M. D., F. A. C. P.—Price, \$7.50—Lister Medical Press, St. Louis, 1930.

RADIUM IN GENERAL PRACTICE—By A. James Larkin, B. Sc., M.D., D. N. B.—Illustrated—Paul B. Hoeber, Inc., New York. Price, \$6.00.

TRAUMA, DISEASE, COMPENSATION—By A. J. Fraser, M. D.—Price, \$6.50, Net—Philadelphia, F. A. Davis Company Publishers, 1930.

NORMAL FACTS IN DIAGNOSIS—By M. Coleman Harris, M. D. and Benjamin Finesilver, M. D.—Price, \$2.50, Net—Philadelphia, F. A. Davis Company Publishers, 1930.

RESEARCH AND MEDICAL PROGRESS AND OTHER ADDRESSES—By J. Shelton Hensley, M.D.—The C. V. Mosby Co., St. Louis, 1929—Price, \$2.00.

MODERN OTOTOLOGY—By Joseph Clarence Keeler, M. D., F. A. C. S.—Price, \$10.00, Net—Philadelphia, F. A. Davis Company Publishers, 1930.

CANCER OF THE BREAST—By William Crawford White, M. D., F. A. C. S.—Price, \$3.00—New York and London, Harper and Brothers Publishers, 1930.

THE SURGICAL CLINICS OF NORTH AMERICA—Volume 10. No. 2. (Chicago Number—April, 1930).—Per clinic year—Paper, \$12.00; Cloth, \$16—Philadelphia and London, W. B. Saunders Company.

BOOK REVIEWS

OBSTETRICS—GYNECOLOGY

By Joseph B. DeLee, M.D., A.M., and J. P. Greenhill, M.D., B.S., F.A.C.S., of Chicago, Illinois, and John Osborn Polak, M.D., Professor of Gynecology, Brooklyn, New York. One of a series of eight year books, covering the entire field of recent medicine and surgery, each volume complete on subject which it treats.—Price \$2.50—Year Book Publishers, Chicago.

Like all the previous editions of this series the 1929 edition gives a most complete and comprehensive resume of all the worth while literature, both foreign and American, on obstetrics and gynecology for the year 1929.

With each resume is given the name of the author together with the name and date of the journal in which the original article is published so that if sufficiently interested one may easily find the original for more thorough study.

It is divided into two parts, namely Obstetrics and Gynecology. The section on Obstetrics is subdivided into chapters dealing with Pregnancy, Labor, Puerperium, The New Born and Miscellaneous. Each of these in turn is subdivided and indexed to facilitate easy finding.

The section on Gynecology is likewise divided into chapters on General Principles, Menstruation and Its Disorders, The Ovary, Displacements and Injuries, Infections and Allied Disorders, Tumors and Malfor-

mations and Sterility. These also are subdivided into indexed subdivisions.

Taken in all this is one of the best systems for looking up the literature on these subjects.

F. W. R.

SYMPTOMS OF VISCERAL DISEASE

(A Study of the Vegetative Nervous System in Its Relationship to Clinical Medicine)—by Francis Marion Pottenger, A.M., M.D., LL.D., F.A.C.P., Medical Director, Pottenger Sanatorium for Diseases of the Lungs and Throat, Monrovia, California, etc.—Fourth Edition—With Eighty-Seven Text Illustrations and Ten Color Plates—St. Louis, The C. V. Mosby Company, 1930.

This volume, which has now reached its fourth revision, is one of the outstanding contributions in the realm of research observations in medicine, representing as it does "only a brief excursion into a large field." The author has assumed the viewpoint that medical teaching has largely been by memory of rules, symptom complexes, and morbid anatomy. In this volume he attempts to investigate certain primary and fundamental principles of the autonomic nervous system which, if understood, will render the interpretation of symptoms a matter of logical deduction rather than a fete de memory.

The volume is conveniently divided into three main divisions, the one presenting a discussion of the vegetative nervous system, the second discussing the relationship between the vegetative nervous system

and the symptoms of visceral disease, while the third is devoted to a consideration of innervation of the important viscera with a clinical study of viscerogenic reflexes.

Any physician who will carefully study this volume will not only provide himself with information which will be useful to him in daily practice, but will also receive stimulation for observation and researches in connection with his own practice.

THE MEDICAL CLINICS OF NORTH AMERICA

Volume 13—Chicago Number, Number 5—
Published Bi-monthly (Six Numbers a Year)
—Philadelphia and London, W. B. Saunders
Company, March, 1930.

This Chicago number of the well-known Medical Clinics of North America, presents a number of unusually interesting discussions, particularly for the general practitioner. Outstanding are the clinics of Drs. Solomon Strouse and Katherine M. Howell discussing undulant fever, that of Drs. Robert W. Keeton and Esther S. Nelson on toxemias of pregnancy, and that of Dr. Jesse R. Gerstley on appendicitis in children. Heart failure is ably discussed by Dr. William A. Brams. Of the more unusual conditions discussed in this number should be mentioned "Bronchus Carcinoma" by Dr. Aaron Arkin, and "Paroxysmal Hemoglobinuria" by Drs. I. Pilot and Harry Friedman.

UTERINE TUMORS

By Charles C. Norris, M.D., Professor of Gynecology and Obstetrics and Director of the Department, University of Pennsylvania—Illustrated—New York and London, Harper and Brothers, Publishers, April 8, 1930. Price, \$3.00.

This monograph coming from the pen of a noted gynecologist fulfills generously one's expectations.

It was written primarily for the general practitioner, but its thoroughness in dealing with the causes, symptoms, diagnosis and treatment of the different uterine tumors makes it a very valuable manual for the man limiting his practice to gynecology.

There are chapters dealing exhaustively with polyps, cancers, sarcomas, fibroids and also new growths of the chorion.

Though small in size it contains all the practical fundamentals found in a several volume set on the subject.

The fourteen pen drawings might be improved upon, both in quality and number, however, being diagrammatic they illustrate the point in mind very well.

F. W. R.

THE NEWER TREATMENT OF MOUTH CANCER

According to Dr. F. E. Simpson of the Frank E. Simpson Radium Institute, malignancies of the mouth treated by the application of sufficient dosage properly filtered and applied radium can be cured.

In all cases a Wasserman should be made but it must be borne in mind that a true malignancy may develop in a luetic patient and for this reason a biopsy will prove the best guide for treatment.

The adjacent lymph nodes should always be irradiated.

In 1926 Dr. Simpson reported 141 cases of mouth cancer treated by radium. Forty-seven (40.8%) were clinically well for periods of from one to five years. It is his belief that poor treatment at the start is responsible for most fatalities of cancer of the mouth.

UNITED STATES CIVIL SERVICE EXAMINATIONS

The United States Civil Service Commission announces the following open competitive examinations:

Medical officer, associate medical officer, assistant medical officer.

Applications for the above-named positions will be rated as received by the Civil Service Commission at Washington, D. C., until June 30, 1930.

The examinations are to fill vacancies in hospitals of the Veterans' Bureau, the Public Health Service, the Indian Service, and in other establishments of the Federal classified service throughout the United States.

Competitors will not be required to report for examination at any place, but will be rated on their education, training and experience.

Full information may be obtained from the United States Civil Service Commission at Washington, D. C., or the Secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city.

THIRD GRADUATE FORTNIGHT OF THE NEW YORK ACADEMY OF MEDICINE

The third annual Graduate Fortnight of the New York Academy of Medicine will be held from October 20 to 31, 1930. The general subject which has been chosen for this year is "Medical and Surgical Aspects of Acute Bacterial Infections."

The program as arranged is in two parts—coordinated afternoon clinics to be held in ten important hospitals of the city, and evening meetings to be held at the Academy. An added feature of this year's Fortnight will be an exhibit of anatomical, bacteriological and pathological specimens and research material bearing upon the various aspects of the subject. Each of the hospitals cooperating in the Fortnight will present two afternoon clinical programs dealing with different phases of the general subject.

The list of speakers who have been invited to take part in the Fortnight includes prominent clinicians from many parts of the country who are recognized authorities in their special lines of work. The profession generally is invited to attend. No fees will be charged for attendance at any of the clinics or meetings. A complete program and registration blank for special clinics and demonstrations will be mailed on request.

The JOURNAL

of the

Iowa State Medical Society

VOL. XX

DES MOINES, IOWA, JUNE, 1930

No. 6

PRESIDENT'S ADDRESS*

JOHN H. PECK, M. D., Des Moines

Mr. Chairman, Members of the Society, Honored Guests, Ladies and Gentlemen:

As your President, it has been a very great pleasure to serve you to the best of my ability during the past year. I am deeply appreciative of the very great honor of election to the highest office in our State Society, yet I have not been unmindful of the heavy obligations and manifold duties imposed thereby. With opportunities for service always go weighty responsibilities and liabilities for mistakes with resultant criticisms. If I have been able to make even slight contribution to the welfare of organized medicine, I am content. To make progress in medical service, your President must be more than a titular head; he must be a leader! The desire for more service is a healthy state of mind for progress. The greatest need of organized medicine today is real statesmanship. Statesmen with knowledge and understanding must be developed through years of service on committees, as councilors, and in minor positions in the ranks.

Unfortunately there is no statutory provision which requires the President-Elect to address the general assembly or the House of Delegates until *after* his work is done. Then, as President, he may only present a review of accomplishments during his year in office, and make such recommendations as he may deem advisable for the betterment of the Society. For this reason, an innovation has been attempted on our program this year where the incoming President has been invited to deliver an inaugural address. The President-Elect has attended various official meetings during the year and has, no doubt, formed very definite ideas as to how the affairs of the Society might be better conducted. He has also visited many county societies throughout the State and has

doubtless listened to a great deal of advice, so that he has been able to formulate an excellent progressive program for our Society for the coming year.

There is ample reason to believe that there is an increasing interest in the business affairs of the Society. In recognition of this fact, some states publish the reports of the general officers and the committees in the official JOURNAL in advance of the annual meeting. Our plan of publication of the proceedings of the House of Delegates at least two months afterward, loses much of the desired effect. Knowledge of the transactions of the Society engenders a very desirable interest and stimulates an increased activity on the part of the membership. An unusual opportunity has been afforded me to observe the workings of our central office during the past two years, in charge of our lay managing director. This plan has proved to be a marked success from the standpoint of the public and the profession. The increasing amount of clerical work necessitates constant attention to details. A medical secretary on a nominal salary and enjoying a growing practice cannot be expected to give the routine office work more than supervisory attention.

The handbook for use of members of the House of Delegates, issued this year for the first time, serves a very useful but somewhat limited purpose as it is reaching approximately but 10 per cent of the members of the Society. The undoubted value of the handbook should encourage its regular annual publication, provided that all reports be submitted to the Secretary at least thirty days in advance of the annual meeting, to insure this intended widespread publicity.

Among the many projects in which the Society is interested, there are several which deserve special mention. Careful reading of the JOURNAL will keep you well advised as to the business of the Society. May I emphasize the

* Presented before the Seventy-Ninth Annual Session Iowa State Medical Society, Marshalltown, Iowa, May 14, 15, 16, 1930.

fact that it is *your* JOURNAL and the Editor has a very earnest desire to make it increasingly valuable to you. Many changes have been made therein, several new departments established, and your officers are of the opinion that we now have one of the best state journals and an exceptionally able editor. Your suggestions and criticisms for betterment of its pages will be gratefully received, and adopted if feasible. The President's page should be continued, as it provides him with a splendid opportunity for frequent messages on pertinent subjects to the general membership. The amount of society proceedings and personal mention appearing in the JOURNAL depends upon your cooperation in informing the editor promptly of news items for each issue.

The proposed plan for redistricting the State into more compact councilor districts, as recommended in the report of the Chairman of the Council last year, has met with gratifying, general approval and will, no doubt, be consummated in the near future. Ten energetic, enthusiastic councilors can accomplish a remarkable amount of field work, encouraged by the renewed interest in county society activities and aided by our vastly improved means of transportation.

There are many district societies in the State which have very indefinite boundaries and no relation whatsoever to the State Society. This situation is wrong in principle and is not conducive to concerted action in carrying out any proposed policies or projects. Immediately upon the creation of workable councilor districts, should follow the formation of district societies, directed to a certain extent and subsidized, if need be, by the parent body. Healthy and stimulating rivalry between the districts along lines of greater membership, better scientific programs and other contributions to the good of medicine in general, should naturally develop. A splendid article in the April number of the American Medical Association Bulletin on "Councilor District Meetings as a Stimulus to County Society Progress" should be read by every interested member, as it will overcome many of the objections voiced against district societies. Under this plan of organization, other states have enjoyed greater benefits to county societies and to the state body as a whole. Furthermore, many policies originating in the state office could be more effectively carried out through councilor district societies, as "the nearer the responsibility is to the individual member, the greater is the likelihood of an action being carried forward."

A special word of commendation must be expressed for the splendid work of the two special committees which were authorized at the 1929 session of the House of Delegates, viz:

1. The Committee on Medical Education and Hospitals has made a preliminary report at this session and promises a voluminous report with specific recommendations within a few months. This investigation has entailed an enormous amount of detailed work and, while final statement is lacking, there is a general feeling that the direct result of its study will be a vindication of the University Hospital in its care of the indigent sick and a saner appreciation of the standing of our medical school. We all eagerly await the report of the labors of this much overworked Committee, and I hope that it will eventually become a Standing Committee.

2. Scarcely less important and far-reaching are the problems under consideration by the Committee on Medical Economics. They have studied many questions of interest to our entire membership and have brought concrete recommendations to the attention of our legislative body. The suggested fee bill is an interesting schedule of minimum charges to be made for various medical and surgical services rendered. The relationship of the medical profession to the public was thoroughly studied and tentative solutions were presented. Numerous major problems remain untouched; such as corporation and county contract practice, efficient collection systems, personal economics, and others. Likewise, this Committee should be continued for more intensive investigation of the distressingly human side of the practice of medicine.

The House of Delegates last year authorized the organization of a Woman's Auxiliary to our State Society. A goodly number of counties have organized and arranged interesting, worthwhile programs. The Auxiliary can render valuable assistance, especially politically and legislatively, and deserves our support and encouragement.

The fine spirit of cooperation with the Iowa Federation of Women's Clubs has culminated in a contest between their districts for the highest percentage of their members who have had periodic health examinations during the current year. This attitude on the part of 60,000 Iowa club women has attracted a vast amount of favorable comment and should be a mighty stimulating factor in the more general acceptance of this approved project of our National body. A more simplified, standard-

ized examination blank and an adequate, uniform fee will do a great deal to promote an annual physical check-up of all their membership.

The responsibility for lay health education through a speakers bureau, news service, radio broadcasting, etc., belongs to our Society. The speakers bureau has already begun to function in a limited way but, with a departmental secretary soon to be placed in charge, it promises to become a very important feature of our work. Physicians in the past have neglected a real civic duty—that of dissemination of scientific, medical knowledge through recognized ethical channels of education. The trained voice has a wonderful opportunity. We have planned to supply speakers on various medical and health subjects, furnishing them outlines of speeches and visual aids; such as maps, charts, lantern slides and movie reels—in fact everything *except* the voice.

Several series of articles on health topics to be furnished the lay press are in process of preparation. This avenue of education has been used to some extent in our State but the educational value in the mind of the public has not been appreciated. This material is to be so carefully edited and distributed that no objection to its use may possibly arise. Radio broadcasting has been so abused that, until the air is entirely cleared of the present vicious advertising from certain stations, scientific medical talks should not be broadcast. Lay people are becoming more "health conscious" and we must be prepared to do our part in directing their medical education.

The conference of Officers of County Medical Societies held in Des Moines last November was largely attended and brought forth much of value to the Society in the generous discussions of many subjects of general interest to the membership. Doctor Fishbein gave a most stimulating address. Some future meeting of the Secretaries of County Societies should be held at the headquarters of the American Medical Association in Chicago. This trip has been made and thoroughly enjoyed by the Secretaries from Michigan, Indiana and Wisconsin. They would be very welcome and the cost should not be prohibitive.

We are enjoying unusually pleasant relations with the official bodies of our State, namely: The State Department of Health and the State University, College of Medicine, as well as the numerous voluntary organizations which have a more or less definite health program. These contacts are so important that there should be a special committee constituted to preserve and foster this favorable position of leadership. Thus, a Public

Relations Committee in the State Society should be the liaison agency to actively direct all health programs, preventing duplication of effort, broadening the scope of preventive medicine and making medical science the basis of health propaganda.

There is every reason to believe that the quality and variety of scientific programs are steadily improving. The meetings of the county societies have progressed beyond the exclusive presentation of the usual type of medical papers. At least one of these meetings each year should be devoted to the study of some phases of medical economics. Witness the change in your State program today as evidence of the changing trend toward accredited graduate instruction. Dry clinics, practical presentations and clinical demonstrations are now *demanded* by an enlightened profession. The Society which does not sense this desire and meet the situation by promoting these innovations is doomed to failure. Let it never be said that we are not progressive!

Another proof that the modern physician will not be satisfied with abstract generalizations drawn from an abundant literature, is the unprecedented success of post-graduate medical education in the recent demonstrations at Waterloo and Mason City. Clinical instruction has proven so popular in Iowa, as elsewhere, that a very serious problem has arisen as to how the demand can be met. Our State University must refuse the increasing number of requests for medical extension owing to the lack of trained personnel, which *really* means lack of finances to provide highly qualified teachers for extramural post-graduate courses, and at the same time carry on the required undergraduate instruction and care for the patients in the University Hospital. We have started something which we are under moral obligation to finish. This very obvious desire on the part of the general practitioner to profit by instruction in the advances of medical science is most encouraging, and if he will accept it so eagerly when brought to him and served in an attractive manner, some means must be devised whereby these courses shall be continued, and eventually enlarged. Such service is not an experiment but a thoroughly proved success. The State Society has here an outstanding opportunity to advantageously expend a portion of their surplus funds.

The chest clinics conducted so extensively for more than ten years by the Iowa Tuberculosis Association afford a splendid illustration of a valuable and appreciated contribution of a voluntary health agency to the Iowa physicians. More than three hundred such clinics have been held, and

more requests are now received than can be filled with the limited, available funds and the present staff of clinicians.

The status of organized medicine, is becoming more firmly established. I have enjoyed the opportunity of taking a part in this development and have regarded it as a privilege to have given it my best efforts. For the splendid, loyal support and conscientious work on the part of my associates I am profoundly appreciative, and I shall feel gratified if some progress has been made during the year just past in the achievement of medical ideals.

PRESIDENT-ELECT'S ADDRESS*

WILLIAM A. ROHLF, M.D., Waverly

The retiring president has left a record of real accomplishment. The Society may well be congratulated for having inspired Dr. Peck to give so much of his time and talents during the year to advancing the best interests of the medical profession. Especially should he and his various co-workers be commended for splendid progress. We are mindful also of the good work done in preceding years, the steady growth in membership, the expansion of the various departments, the raising of standards pertaining to things medical and increasing the efficiency of the medical profession for the good of humanity. Accepting the responsibilities and burdens so ably carried and handled the past year by Dr. Peck, I do so in a spirit of seriousness and determination to do my best. I ask your cooperation and forbearance.

Public Health measures under the leadership of the lamented Dr. Henry Albert have reached a fine state of development. Much indeed has been accomplished. The public has been awakened to the value of prevention and is taking an active interest in getting practical results. Sentiment is gaining ground that activity in the prevention of disease is the duty of every individual member of the profession. To ignore the efforts of the State Board of Health is to invite, what some members very much fear, state medicine. We should assist this Board and actively take part in matters of immunization education. Let us forget for a moment the idealistic and altruistic phase of our relationship to humanity and consider the financial side in relation to preventive medicine. Allow me to quote from a letter received from Dr. Steelsmith. "For the five-year period preceding the State Department's education campaign toward diphtheria immunization namely, the five years preceding 1923, there occurred in Iowa more

than three thousand cases of diphtheria each year. Many of these cases were not seen by any medical practitioner but the average revenue as computed by statisticians, signifies that the physicians of the State of Iowa received in cash approximately \$20.00 per case for the treatment and cure of diphtheria for each of the five years preceding the state-wide anti-diphtheria program. This would result in the physicians of the state receiving approximately \$60,000 for such work each year incidental to diphtheria.

Now in comparison to that, allow us to suggest that there are approximately 44,000 children born each year in Iowa. For the sake of figures, we will say that the average price for immunization would be \$3.00 per child. If the physicians would interest themselves in preventive medicine and see to it that every child is treated before he is a year of age they would see clearly that from such practice the physicians of the state of Iowa would receive \$120,000 a year or twice as much as you and I received years ago for the treatment of cases, and also that they will be rendering a great service to the public in the prevention of diphtheria and deaths therefrom, and at the same time be recompensed for same and, in fact, will have double the income of "ye olden times."

It is with no little pride that I remind you that yellow fever, malaria, typhoid, diphtheria, small-pox, and summer diarrhea of infants are in a comparative sense, no longer the scourges of only a few years ago, yet our work is not finished. There is still much to do in the way of bringing about ideal conditions through vaccination and immunization. The role of focal infection has opened up other avenues for our activities. We should be personally interested and, as physicians, assist in the examinations and treatment of school children.

Along with this field of endeavor may be mentioned educational campaigns relative to tuberculosis and more recently to the work of the American Society for the Control of Cancer. Not the least benefit from these efforts has been to stimulate members of the profession to better work. Practical results are shown in that it has been definitely proved that the percentage of women who now come to the physician for examination of tumors of the breast has largely increased and that examinations are made earlier in these cases. This also applies to vaginal bleedings and discharges. It merely needs to be mentioned that early diagnosis and treatment is the only hope for these cases. It is suggested that talks to the laity should be rather optimistic but candid and sincere. One prominent surgeon re-

* Presented before the Seventy-Ninth Annual Session Iowa State Medical Society, Marshalltown, Iowa, May 14, 15, 16, 1930.

ports that the number of women who consulted him regarding lumps in the breast after the cancer campaign had increased 60 per cent. No doubt others have had similar experiences. This would indicate that good results are being obtained.

Another educational effort that we hope will increase in scope and usefulness is the Extension Course of the Medical Department of the State University. To Dr. McManus belongs the credit of initiating this program in Iowa. Courses have been given in Waterloo and Mason City the past year. The experiment has proved successful beyond the anticipation of those responsible for the movement. It is hoped that the coming year will see the expansion of the project. Bringing the post-graduate courses to the physicians saves them much time and money. The expense has been and probably can continue to be nominal. Besides the really valuable revival in medical and surgical study among active practitioners, the closer fellowship and fraternal mingling will be no small benefit to be derived from this institution. This work will also be another means for the better understanding and, if possible, will increase the splendid loyalty of this association toward the Medical Department of the State University.

The Medical Education and Hospitals Committee is still working to get facts of interest and importance to our society. This committee has put in much time and energy the past year, but its work is not yet done.

Reports will be made, and better cooperation between the Medical Department and our association will be built. So valuable and interesting will be the work of this committee that it would be, in our estimation, a wise move to make such a committee permanent. The Medical Society is interested in the problems of the Medical Department of the University, and they in turn are desirous of serving most efficiently the student body and the profession of the state.

Much interest at this time is centered in what is known as the "Basic Science Law." There have recently been published a number of splendid papers that fully cover this subject, one by Dr. W. L. Bierring of Des Moines. Reprints of these papers will be sent to each member so that remarks here will be brief. As generally accepted the subjects included in the Basic Sciences are Anatomy, Physiology, Bacteriology, Pathology, and Chemistry. Some states that have this law in force expect to add Diagnosis and Hygiene. Any applicant for a license to practice the healing art of any school or system of healing is required to pass the examining board and receive a certificate. Without this certificate he cannot be licensed or

even allowed to take the examination before the examining boards representing the various systems of medicine. It really is a move to raise the educational standard of all applicants for license to practice the healing art regardless of the system. In theory this sort of law with a special board of examiners seems to us a mistake. There should be only one examining board with a single standard of qualification for license to practice medicine. In our state with its various boards, a Basic Science Board would add still another. Should we pass a Basic Science Law, the examinations should be held by the regular Medical Examining Board. We do not need any more examining boards in Iowa. Experience in some of the states which now have a Basic Science Law seems to be that it is not a cure-all. It has proved effective in reducing the number of cultists from being granted licenses, but in no state has it kept them from getting licenses in goodly numbers. Special extensive courses, quiz compends, and special instructors have aided many to get by the Basic Law Science Boards. Instead of defeating the cultists, it has rather, it seems to us, added dignity and prestige to their claims and position as healers. A better evidence of proficiency in the Basic Sciences would be credentials showing attendance for two years at an accredited college.

The coming year will be one of legislative activity. This will add some responsibility to the duties of our officers and especially our capable and faithful legislative committee. I shall not at this time make any suggestion as to specific bills that it is hoped may be passed in the interest of organized medicine. This matter is in the hands of our committee. May we however ask for your cooperation at all times? You will be kept informed on these legislative matters and, when they are called to your attention, may we not count on you for more than passive activity? There is always diversity of opinion on medical questions, but, when we appear before the legislature with requests, there must be no conflict of ideas as to what we want as a state society. We must know what we want and have our wants clearly defined. Every member should be active in united efforts to support our committees. Every member of the legislature must realize that the measure is a movement of universal medical interest and not the movement of a few enthusiasts. We are sure that the committee will not ask for any measures that are selfish as far as the profession is concerned, but that each measure will be for the benefit of humanity which our profession unselfishly serves.

Whatever may be the criticisms of legislative

bodies as to incompetency in some states, the legislature of Iowa is composed of men who we believe are fair-minded and reasonable. However, they must have matters clearly presented so that they may understand the profession's point of view. You should make personal appeal to your representative and your senator, for who would receive more consideration from them than the family physician? In short every member of the society should get behind our committee and we will have the desired results.

One reason for our unsatisfactory medical laws is that in the past we as a profession have not asserted or rather *exerted* ourselves in behalf of our real needs in the line of better legislation for the profession and the people of our state.

With the record of a fine spirit of cooperation in the past, I look forward to the coming year with hope, enthusiasm and optimism.

ALLERGY AS RECOUNTED BY THE GENERAL PRACTITIONER*

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I understand that it is the wish of this Society that I confine my discussion to the practical clinical points in allergy which can prove interesting to the general practitioner and avoid discussion of theoretical points which are interesting to specialists, but which cannot at the present time be applied practically. I can assure you there remains an abundance of material which is both interesting and useful.

In 1910 Meltzer made the suggestion that bronchial asthma is a phenomenon of anaphylaxis. Regardless of the fact that the accuracy of this statement may be questioned, certain it is the suggestion has directed attention to an important class of diseases and that a productive study has resulted. From recent investigations, we have learned to diagnose and treat illnesses which previously were overlooked or were not understood, or were not amenable to treatment.

It was observed by Magendie as early as 1839 that dogs which had been repeatedly injected with egg albumen often died suddenly. At a later period, Richet observed that animals injected with eel serum became sensitive to it so that second doses too small to be harmful to normal animals caused violent symptoms or death in the animals which had previously been inoculated. To this peculiar condition he gave the name anaphylaxis.

In the earlier days of the development of this subject, we were inclined to believe that food idiosyncracies, pollen sensitiveness, and illnesses following serum injections were closely related to the condition produced in animals by second doses of serum. This apparently is not a correct viewpoint, for we find it is very difficult to sensitize human beings by one or several injections of extraneous material. It led to the discovery of the fact, however, that in humans we have a hereditary condition in which a person spontaneously becomes sensitive to some alien substance and reacts violently upon intimate contact with it. For the recognition of the importance of heredity in the allergic constitution and still more for the directing of the attention of physicians to the reality and importance of this class of diseases, we should feel grateful for the researches of Drs. Coca, Cooke, Vander Veer, and their associates. Also for the early writings and investigations of Vaughan, Koessler, Walker, Rackemann, Lawdermilk, and others.

Extreme Degree of Sensitiveness.—The extreme degree to which this type of sensitiveness can develop is almost beyond belief. It can be so extreme that a common wholesome food stuff such as egg may come to rank in a sensitive patient with the poison of a venomous reptile in its capacity for causing illness—in fact, I know of few poisons comparable with an allergen in a highly sensitive case except diphtheria toxin and tetanus toxin. Fortunately, sensitiveness of this extreme grade is uncommon. Sensitiveness in milder grade is common. I can easily illustrate high grade sensitiveness by stating that I have had three egg sensitive cases who could be made ill by eating the trace of egg in hen meat. They could tolerate rooster meat with impunity. It is well known that certain infants are made ill by mother's milk and that the illness can be traced to certain foods eaten by the mother to which the infant reacts. If these foods are eliminated from the mother's diet, the milk may agree with the infant. I have observed a number of patients who could be made violently ill by as little as one drop of honey. It can be readily understood that the substance which made them ill must have been ridiculously minute in amount for it is a known fact that if the sugar is removed from honey by dialysis and water by evaporation, practically nothing remains. I might finally illustrate high grade sensitiveness by citing the fact that I have observed three individuals who were sensitive to egg and suffered from eczema, asthma, or both upon contact with egg. Each of these three patients were relieved completely when egg was removed both from their diet and from the house

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in which they lived. In each case, recurring attacks of eczema or asthma or both could be traced to the fact that egg was carried to the patients by individuals who had recently eaten egg. It is actually a fact that a mother's kiss can be violently poisonous to an egg sensitive infant if the mother has recently eaten egg.

Origin of Sensitiveness.—Two factors seem important in the origin of sensitiveness to foreign matter. One is a peculiar constitution which permits an individual to become sensitive to foreign matter. The other, peculiarity of exposure. Patients apparently become sensitive to materials which they meet with in traces rather than to materials which they encounter grossly. For example, it is uncommon to find a patient sensitive to milk casein. They are more likely to become sensitive to a substance contained in milk in infinitesimal amounts. They are more likely to become sensitive to the pollen of the air which they encounter in traces than to materials of diet which they encounter grossly. The fact is, that if a person were sensitive to something which he encountered in gross amounts at daily intervals, he would either die from gross exposure to the substance or gain tolerance for it.

Duration of Sensitiveness.—Sensitiveness, once acquired, is likely to be permanent. This is more true of sensitiveness to air carried substances than it is in the case of sensitiveness to foods. This latter condition is probably due to the fact that in the case of food sensitiveness, a person often reacts to a split product of a food rather than to the food as it exists in nature. If digestive processes change so that certain products are not elaborated or not absorbed, we might explain theoretically why a patient should cease reacting to a food which at one time apparently caused illness.

Specificity of Sensitiveness.—Sensitiveness is frequently highly specific. For example, individuals sensitive to foods such as strawberries, or cantaloupe may react to the product grown in one locality and may tolerate the product grown in another locality. This apparent high grade specificity is not difficult to account for when we realize there exists differences in flavor of foods grown in different areas. Foods grown in certain areas certainly must contain chemical bodies which do not exist in the same food grown in another locality.

Multiple Sensitiveness.—Certain individuals are sensitive to one agent only. The majority are sensitive to more than one. Patients sensitive to pollen may also be sensitive to a food or animal dandruff or may also be sensitive to physical agents such as heat or cold or light or scratches.

Whereas, multiple sensitiveness is a recognized condition, some patients who apparently react to almost everything, are often found sensitive to one or several agents which have a wide distribution in nature.

AGENTS WHICH TEND TO SENSITIZE

Pollen.—Pollen is probably the most common single cause of sensitiveness in human beings. A patient who is sensitive to pollen reacts, as a rule, to the pollen which is found most abundantly in the air of the district in which he resides. Three classes of pollen are important. The pollen of the trees, which give rise to spring cases of so-called hayfever, asthma, or dermatitis; the grasses which may give rise to summer cases; and the weeds which may give rise to fall cases. Flowering plants are relatively unimportant in the causation of reactions because of the fact that the pollen of flowering plants is not produced in large quantities. It also has a tendency to adhere to the plants from which it is produced. The pollen of flowering plants is carried from plant to plant by insects rather than by wind. Very few individuals are actually made ill by the pollen of a flowering plant. They are occasionally made ill by emanations from the leaves or petals of flowering plants.

A study of the pollen content of the air yields extremely interesting information which explains the peculiar behavior of many individuals. Pol-

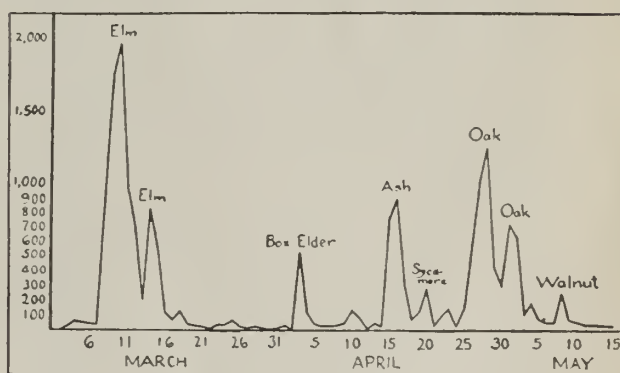


FIGURE I.—Tree Season, 1927.—The pollen content of the air during the tree season 1927. Note the peaks caused by pollenation of the different trees. These peaks usually appear on bright windy days. Wide spread rain usually filters pollen out of the air so that after a rain we often find a sharp drop.

len does not constantly fill the air during the spring, summer, or even the fall months, as we previously presumed, but fills the air for short periods of time and then nearly disappears. In Figure I is shown the pollen content of the air observed at daily intervals in Kansas City during a period of one year. It can be observed that in

March we have a peak of pollen production occurring coincident with the blossoming of elm trees. Other peaks occurring at later dates are coincident with the blossoming of box elder, ash, sycamore, oak, and walnut. Air pollens can be identified by comparing the pollen found on pollen plates with pollen collected from plants blooming abundantly at the time. Peaks of this sort are inclined to appear on sunny windy days. The pollen may disappear from the air almost completely with wide-spread rain. During the summer months, peaks occur coincident with the pollination of bluegrass, orchard grass, timothy, and red top, and during the fall months coincident with the pollination of the ragweeds. There is an interesting series of peaks during the summer months in Kansas City caused by so-called spores.

The spores found in the air in the middle of July could be identified with wheat rust and several patients who had hayfever at that time gave positive skin tests upon intracutaneous injection of a suspension of the spores of wheat rust.

Attacks of hayfever or asthma and, much less commonly, eczema, occur coincidently with the appearance of these peaks of pollen production. As a rule, testing with the pollen which is found in the air at the time the patient is having symptoms give positive reactions and enables one to make a positive diagnosis as to the cause of the trouble.

It has been found in my cases that a rather large number of patients give seasonal reactions with symptoms such as coryza, and asthma at times when there is no pollen in the air. Furthermore, they are not found sensitive to pollen when tested. Cases of this type frequently are found sensitive to heat or cold and react to certain temperature changes. These will be referred to again subsequently.

It is common to find patients who have pollen hayfever who do not have pollen asthma. The reverse findings are unusual—that is, pollen asthma in the absence of hayfever. It is believed that this is caused by the fact that the nasal membranes filter off a certain proportion of the pollen granules before it reaches the bronchial membranes so that the nasal membranes are, as a rule, more intensely exposed. Very frequently, when the pollen content of the air is very high, patients who ordinarily have hayfever alone, will have, for a time, both hayfever and asthma. Pollen dermatoses are rare, but interesting when found. They can be diagnosed and treated with the same success as hayfever and asthma. Tests should be made by the application of pollen itself to the skin. This may give rise after a period of twenty-four hours to eczema similar to that of which the patient complains. We rarely find the striking

hive reaction observed in hayfever and asthma cases.

The pollen content of the air does not vary as grossly in different neighborhood localities as one would expect. The pollen content of the air observed simultaneously by Durham in the suburbs of the city and by myself at my office in the heart of the city were almost identical on windy days. Pollen gets into the air in much the same way that dust gets into the air on windy days in dry regions. It is carried to great heights and for great distances. There may be little difference in the pollen content of the air near the ground and the air at the top of the highest buildings—in fact, in aeroplane studies which I made last year, we found the pollen content of the air at a height of three thousand feet practically as great as the pollen content of the air near the ground.

There is a gross difference in the pollen content of the air in different geographical localities. In inland cities, such as Kansas City, the pollen content of the air is enormous. In a seacoast city, such as New York and Richmond, Virginia, or Oakland, California, it is very small. The air from the sea contains no pollen and the pollen of the air from the inland which reaches the coast is frequently filtered out of the air by rain in the mountains. Consequently, the pollen which reaches the coast comes from a relatively small district and does not reach the heights observed in middle west cities. Vaughan's counts made in Richmond, Virginia, and Rowe's counts made in Oakland, California, are scarcely ten per cent as great as those found in Kansas City, whereas, Durham's counts made in Indianapolis and mine made in Kansas City are not grossly different.

I previously mentioned wind as an important factor in the carrying of pollen. This factor is so important that patients afflicted with severe symptoms of pollen disease may be violently ill on a windy bright day whereas on a still day following a rain, they may be almost completely relieved. I found that the pollen content of the air in a closed room is practically nil as compared to the pollen content of the outside air. Pollen falls quickly to the floor in a closed room. This makes an ideal place, therefore, for the treatment of a pollen sufferer. Conversely, the amount of pollen deposited upon pollen plates behind the propeller of an aeroplane is perfectly stupendous. More is deposited within thirty seconds than is deposited by still air in twenty-four hours. These facts account for the apparently erratic behavior of patients with pollen disease. Those who are highly sensitive may be relatively free of symptoms if they remain indoors and on the same day may have severe attacks if exposed to air in mo-

tion. A railroad trip is always hard on a pollen sufferer on days when the pollen content of the air is high.

Whereas, pollen is the greatest single cause of allergic reactions, other agents are also important.

Feathers and Hair.—A certain small proportion of individuals are sensitive to hair or feathers and may react upon adequate exposure to certain animals. Patients of this sort are usually more sensitive to the animals than they are to the renovated fur or feathers. This type of reaction is important in individuals whose occupation brings them in intimate contact with animals to which they are sensitive.

Smoke.—Smoke is a very definite cause of reaction in a very large number of cases. Patients can be just as specifically sensitive to certain types of smoke as they can be to certain types of pollen. For example, certain sensitive patients react to wood smoke, others to coal smoke, others to tobacco smoke. One patient I had was so sensitive to cigar smoke that the amount carried home on the clothes of her husband would cause her to have asthma. She could tolerate cigarette smoke. One patient sensitive to wood smoke was so highly sensitive that she could not remain many minutes in a room with an open fire place without having asthma. She had asthma regardless of whether a fire was burning or not. A scratch test with a solution of wood smoke gave such a violent reaction that adrenalin had to be given immediately for her relief.

Dust.—Coca, Cooke, and associates have added a great deal to our practical knowledge from the study of dust as a specific cause of hayfever and asthma. They are able to extract substances from dust with which they can obtain good results in therapy.

Foods.—Foods are a very definite source of hayfever, asthma, dermatoses, and gastro-intestinal upsets, especially in children. By far the commonest offenders are milk, eggs, and wheat. I have found pork to be a source of perennial symptoms in a small number of patients caused by daily contact with lard or bacon grease. Patients of this sort commonly give a history of asthma upon exposure to the fumes of frying grease and since food cases very commonly give negative skin tests, this history is important in the diagnosis of pork sensitiveness.

Drug Idiosyncracies.—It has been known for centuries that certain individuals are sensitive to certain drugs and react with symptoms which are similar in many respects to those of food idiosyncracies. Common types of sensitiveness of this variety are those caused by the salicylates, iodides, arsenical drugs, drugs of the atropine series, co-

caine series, the morphine series, and the quinine series. Patients may become so sensitive to a drug that it is actually dangerous to use it in even minute amounts. A number of dentists have severe dermatitis from their infinitesimal exposure to the anesthetic which they use in nerve block.

Bacteria.—It was formerly believed that bacteria were common sources of sensitiveness and gave rise to symptoms similar to those observed in pollen disease and in the food idiosyncracies. Most individuals are sensitive to certain bacteria in the same sense that tuberculous patients are sensitive to tubercle bacilli. However, I do not believe that bacteria give rise to the stormy symptoms characteristic of pollen disease except occasionally in the acute infections such as acute tonsillitis and rheumatic fever and scarlet fever. This view, however, is not shared by certain observers who believe that bacteria are a common source of allergic coryza, bronchial asthma, and urticaria. Upon purely theoretical grounds one would believe that if an individual were sensitive to bacteria growing in his tissues, that constant intimate exposure would make him immune and that he would soon cease to react. This question, however, must be considered an open one at the present time. It has been extensively studied by Thomas, to whose writings the readers are referred.

Insects and Animal Parasites.—Insects such as mosquitoes, bees, bed bugs, etc., and animal parasites, such as round worm, may give rise to violent allergic symptoms. I know of one case of death which immediately followed the sting of a wasp. I have known of many cases who were so sensitive to certain insects, that they were made profoundly ill by one or several bites. I observed one case of allergic shock which followed three insect bites and which would almost certainly have terminated fatally had it not been for the timely use of large quantities of adrenalin.

Therapeutic Sera.—In a review of about eighty cases of death following a serum injection, Lamson found a history of hayfever or asthma in about half the cases. A first dose of foreign serum may cause a violent or fatal illness in patients who give a history of asthma, hayfever, or hives. It is advisable before administering serum to inquire for a history of hayfever, asthma or hives, and in case a positive history is found either in the patient or his family, to make conjunctival tests with the serum before it is administered. In case of a positive test, it is urgent to avoid the use of serum unless an emergency such as proven diphtheria justifies taking a gross chance of causing a serum death. Even with the finding of a negative conjunctival reaction, it is well to avoid

the use of serum in hayfever and asthma patients unless it is definitely indicated. It should then be used in doses which are the smallest possible compatible with a good therapeutic result.

Blood Transfusion.—I have had two cases of severe allergic shock occur during the course of blood transfusion in patients with a history of asthma. Both were relieved by the timely use of adrenalin, but one nearly resulted fatally in spite of this. Since these experiences, I have avoided transfusion in patients who give a history of hayfever or asthma. I would not hesitate to use transfusion, however, in an asthma case if the indications for transfusion justified taking a chance. I attributed shock in my two cases to sensitiveness of the patient to a food recently eaten by the donor.

Endogenous Allergy.—One wonders whether or not certain individuals might not become sensitive to some substances originating in their own body. I have had several cases of hives and angioneurotic oedema occurring in lactating women which could be relieved by a breast pump and which disappeared after lactation ceased. Also in several cases sensitive to light or cold, I wondered whether or not the individual could be sensitive to some new product formed in his own skin under the influence of light or cold. I have been unable to prove or disprove this point satisfactorily.

CONTRIBUTORY CAUSES OF REACTION

Many factors, such as mechanical agents, chemical irritants, light, heat and cold, and the heat caused by functional activity can add to symptoms occurring as a result of sensitiveness to some other agent. It is a question with me, however, whether these factors are actually contributory causes of reaction or whether the patient is not specifically sensitive to the mechanical agent, or chemical irritant, or to light or cold or heat as the case may be, so that the two agents acting simultaneously, elicit symptoms which are more severe than that produced by either one acting alone. A decision concerning this important point must be left for future work.

We know, furthermore, that reflexes, emotional disturbances, pregnancy, and lactation, defects in the endocrine secretions, nasal defects, and diseases in the alimentary tract may either cause or add to symptoms which are similar in many respects to that of typical allergy caused by foods or pollens. Occasionally, lesions such as these seem to be primary causative factors of symptoms like allergic coryza or asthma. This type of case is also worthy of further study.

SYMPTOMS

Symptoms which can occur as a reaction of

allergy are widespread. In fact, we might expect it to be possible for reactions to occur in almost any active tissue in the body.

Shock.—Shock is the most tragic of all our symptoms. It is, fortunately, not extremely common. With the onset of shock, the patient usually complains of generalized itching, followed within a few moments by pain in the head or lower back, sneezing, cough, and within a few moments may totally collapse and appear breathless and pulseless. A severe reaction of this kind is usually associated with generalized erythema, frequently urticaria, frequently oedema, and frequently severe asthma. Under appropriate treatment with adrenalin, the symptoms should reduce in severity or disappear within several minutes to thirty minutes.

Orbital Symptoms.—Puffiness and itching of the lids, oedema of the conjunctivae, clear lacrimal secretion.

Nasal Symptoms.—Sneezing, pale swelling of the membranes, clear watery or clear mucous secretion.

Pharyngeal and Oral Symptoms.—Itching and oedema, especially of the soft palate and the pharynx.

Laryngeal Symptoms.—Cough, hoarseness, pale oedema of the larynx and epiglottis.

Bronchial Symptoms.—Cough, wheezing bronchial obstruction, expectoration of clear watery or mucoid sputum.

Gastro-Intestinal Symptoms.—Abdominal pain, nausea, vomiting, diarrhoea, mucous colitis.

Cutaneous Symptoms.—Pruritis, erythema, urticaria, angioneurotic oedema, and dermatitis of many types.

Headache.—Occurs as a primary symptom of reaction or may occur as a result of oedema in the nasal sinuses.

Neurological Symptoms.—Asthenia is common. More rarely we find parasthesia, anesthesia, and in very rare instances, convulsions or temporary paralysis or mental disturbances.

Dizziness and Meniere's Syndrome.—Can apparently occur as a result of reaction in individuals who may have no demonstrable disease in the internal ear.

Urological Symptoms.—Renal colic and irritable bladder.

Miscellaneous Symptoms.—Disturbances in menstruation, arthritis, hypotension, and eosinophilia.

Infection.—May be superimposed upon tissues reacting as above mentioned and may complicate the clinical picture.

SPECIFIC DIAGNOSIS

It has become a custom to place too much de-

pendence and too much reliance in the results of skin tests in the diagnosis of allergy. The fact is that a careful family history, personal history, observations made by the patient in relation to the contact with or avoidance of certain articles, and actual practical testing by avoidance and contact with certain articles rank in importance, if they do not exceed in importance, the results which can be obtained by skin tests. Unfortunately, skin tests are often positive for agents to which the patients do not react clinically and vice versa, agents which actually afflict the patient may give negative skin tests. The most reliable results to be obtained through the use of skin tests are with agents with which the patient comes in contact through the outside air—that is, pollens, animal hair, dust, etc. Skin tests with foods are usually disappointing.

Skin tests can be made in many ways and frequently it is advisable to make tests in several different ways. The intracutaneous tests should not be used by inexperienced men. Scratch tests or tests made by the application of substances to the unbroken skin are more useful in some types of illnesses, especially in the case of dermatitis. They are also easier to use in children. Tests made by spraying solutions into the eyes or nose are very useful in confirming tests made in other ways. This is also true of inhalation tests and subcutaneous tests. It hardly seems advisable to dwell upon this large subject in detail.

TREATMENT

The treatment of patients sensitive to foreign agents is often brilliant if the source of the trouble can be discovered. Avoidance of the cause is best if this can be accomplished and frequently gives rise to a brilliant rapid result. Frequently, however, the cause is difficult to avoid if it happens to be a common pollen or a common food. In this case, we have several ways of increasing tolerance for the noxious agent. It hardly comes within the scope of this article to discuss this large subject in detail. The results of this method of treatment are frequently brilliant and safe if carried out by experienced physicians.

We frequently encounter serious problems in the case of a substance found so universally in the cities as coal smoke. Individuals sensitive to coal smoke may have violent attacks in the environment of factories or railroads and can frequently relieve themselves by keeping away from such environments.

If the cause of the disorder cannot be found, or if, when found, cannot be removed, we are frequently justified in giving what is known as non-

specific "protein" treatment. For this purpose, peptone, typhoid bacilli, colon bacilli, milk, and other agents have been used.

SYMPTOMATIC REMEDIES

Adrenalin.—The use of symptomatic remedies is important. Adrenalin, if adequately administered, should give relief in uncomplicated cases. It is a good practice to give about one-quarter cc or less subcutaneously at five-minute intervals until tremor appears. This usually means that an adequate administration has been given and that relief should follow. After the dose which is most useful for the patient has been discovered, it can be repeated as symptoms tend to recur. It is advisable to give adrenalin in the incipency of an attack rather than wait until the height of the attack is reached. Adrenalin can be given repeatedly, if the dose is correct, for months or years without much apparent ill effect.

If one wishes a more rapid effect from adrenalin in an extreme emergency, it is advisable to give it intravenously or give a given total amount, say one-half or one cc in five or six places intracutaneously. Both of these methods give a very quick result. The intravenous method is probably the more rapidly effective and the multiple injection probably the more useful except in extreme emergency.

Pituitrin.—Pituitrin has an effect that is somewhat similar to adrenalin except that relief does not appear so promptly. Relief so obtained lasts longer. It is useful alone or in combination with adrenalin.

Ephedrine.—Ephedrine, given preferably in solution, has an effect similar to that of adrenalin except that the result does not appear so promptly but lasts longer. Very frequently, constitutional symptoms are disagreeable and should be avoided if possible through reducing the dose to the smallest which will give a therapeutic result. Many patients are unable to tolerate ephedrine and many do not get a good therapeutic result from it.

Atropine.—Drugs of the atropine series are time honored remedies in the treatment of asthma. They can be given subcutaneously or by mouth. Sometimes as little as 1/200 or 1/500 grain three times a day is effective.

Iodides.—This is a useful remedy, especially in older patients. The best dosage varies from a few drops to twenty-five or even fifty drops three times a day. Optimum dosage varies in different individuals.

Salicylates.—Salicylates are very useful in treatment of nasal and bronchial reactions given in

doses of approximately ten grains every three or four hours.

Anesthetics.—The anesthetics, especially alcohol, are inclined to relieve asthma. Alcohol is frequently very useful, especially if combined in fair doses with acetyl salicylate. This combination is a useful substitute for morphine in many cases.

Habit Forming Drugs.—Habit forming drugs are absolutely contra-indicated except in emergencies which justify the chance of causing addiction. This applies especially to morphine. The hardest cases of asthma to cure are those who have become addicted to morphine.

OSTEOMYELITIS OF THE SPINE*

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As a clinical entity, Osteomyelitis of the Spine is probably the least known and least defined one among the larger groups of infectious diseases of the spinal column. It is, on the whole, an uncommon disease. Grissel in 1903 found only eighty-five cases reported in the literature. Many authors use the term rather loosely, including in it such conditions as typhoid and paratyphoid spondylitis, or infectious spondylarthritis. This discussion will be confined to only the pyogenic type of osteomyelitis of the spine for which the staphylococcus aureus is the pyogenic organism in the great majority of the cases.

The series presented by the writer is small, embracing only twelve cases. Still the data gained from these observations seem to furnish sufficient grounds upon which some of the statements made in the usual textbooks may be modified. Of these twelve cases, six were acute, and six chronic in original onset, though all were observed in chronic stage.

The acute pyogenic osteomyelitis of the spine is prevailingly an occurrence of the growing age, from twelve to fifteen years, the age in which the secondary centers of ossification of the spine make their appearance. All of the six cases of acute onset in this series were under seventeen, the youngest being ten years of age at the time of onset. The greatest frequency, therefore, falls in the second decade.

According to Donati 68 per cent of the cases of osteomyelitis of the spine are males and 32 per cent females.

Regarding the localization of the osteomyelitic process, the textbooks make a division between cases involving the posterior arches and those involving the vertebral bodies. It is stated that the

involvement of the arches is more frequent than that of the body. In contrast to this, the six cases of osteomyelitis with acute onset observed by the writer, all showed involvement of the body, the dorsal spine being more frequently affected than other sections. Staphylococcus aureus was found in all cases of the writer's series in which bacteriological evidence was at hand. Only in a small percentage of cases of staphylococcus albus and of staphylococcus infection are reported in the literature.

Trauma seems to be of some etiological significance, in so far as it produces a point of lessened resistance and thereby favors the colonization of the microorganism. A blow or a fall against the spine may predispose to subsequent vertebral osteomyelitis. In the only instance of this series in which trauma was a definite factor in the history, osteomyelitis followed one month later. The question of trauma as an etiological factor may occasionally be of legal importance. However, to establish connection between trauma and osteomyelitis, it would first be necessary to prove the occurrence of the injury together with the fact that the patient immediately before showed no signs of fever, pain, swelling, etc., and, secondly, it must be shown that the interval between the accident and the first symptom of osteomyelitis was marked by local pain and impairment of function as well as by general symptoms. It would not seem logical to establish a connection between contusion or injury without open wound and a following osteomyelitis where there is an interval of more than eight days during which the patient is free from pain or other symptoms.

In the series observed by the writer a primary infectious focus was found in several instances. In one case an infection of the leg following intrusion of a splinter was the primary focus; in another osteomyelitis of the spine developed after a boil, which was first followed by osteomyelitis of the tibia and then metastasized in the spinal column; a sty of the eyelid was the primary infection in another case.

The osteomyelitis of the vertebral body which has been so well described by Lannelongue may develop as a subperiosteal type, or as epiphyseal separation, or again as a rarefying osteitis, or as a destructive ulcerative form. More often a single vertebra is involved and only occasionally does the disease extend over two, three, or more vertebrae. The single vertebra type seems to be the most common form in juvenile cases. Osteomyelitis of the arches and processes is found more frequently in the second and third decade. The spinous processes are most frequently affected in

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the lumbar region. There is also a more diffuse type in which the whole posterior arch is involved, including the spinous and transverse processes. Here, also, in the majority of cases the disease is limited to one vertebra only. Both in the osteomyelitis of the body and in that of the arches extension abscesses readily enter into the spinal canal, causing pachymeningitis, by involvement of the peridural tissue. This was particularly evident in one of the cases of this series in which acute osteomyelitis of the neural arch of one of the cervical vertebra was found at operation (Laminectomy).

Subacute and Chronic Types

According to the textbooks the subacute and chronic types are supposed to be much less frequent than the type with acute onset. Wohlge-muth (1895) finds only a few cases of chronic osteomyelitis of the spine recorded. Most of the cases belong to later age and according to Oehlecker, who reported seven cases, the fifth decade is the most frequently affected. Somewhat at variance with this statement has been the writer's experience who found that quite a percentage of cases of osteomyelitis of the spine had a chronic course from the beginning. Three of the cases in this series started more or less insidiously with pain in the back which was at first vague and only later became localized. All of these cases were osteomyelitis of the lumbar or lumbosacral region.

The ages in the subacute and chronic cases varied from nineteen to forty-seven, the third and fourth decade being in prevalence. As the acute form so also the chronic and subacute forms were usually staphylococcus infections often following furuncles, tonsillitis, and osteomyelitis of other parts of the skeleton. Two of our cases followed trauma.

Pathology

With the exception of one case of osteomyelitis of the vertebral arch and one case of osteomyelitis of the transverse process, all of the cases observed involved the vertebral bodies, most often the lumbar and the twelfth dorsal. The most common pathological change was that of wedge formation and subsequent gibbosity. In the case which developed after splinter infection of the leg, there is some doubt as to the etiology. This case involved a young girl fifteen years old who had been taken acutely ill two months previously following a splinter infection in the leg. The initial symptoms were pain in the back, aching of the muscles, trismus of the jaws, with spasticity of the skeletal muscles. A kyphosis developed after one week. Exam-

ination showed, two months after onset, wedge formation of the fourth and fifth dorsal. Tetanus antitoxin had been administered before. The deformity was treated on a Bradford frame and patient made an uneventful recovery. She is now perfectly well after three years of observation. Instances of sudden kyphosis developing during tetanus are known and it is possible that this case may belong in this same class.

In another instance the x-ray picture showed a peculiar punched out area at the anterior corner of the vertebral body, not unlike a gummatous lesion. This was the case of a 10 year old girl who developed spinal symptoms with night cries, loss of weight, and a deformity four months after trauma, and four months before admission. There was a characteristic list to one side, muscle spasm, hip and knee pain. The x-ray showed the destruction of the anterior portion of the third lumbar with the already mentioned punched out defect. The von Pirquet and Wasserman tests were negative. This patient also made an uneventful recovery following treatment by immobilization.

Abscess Formation

There are three principal sites of abscess formation of the vertebral bodies. One, anterior, in which the abscess forms under the periosteum and enters into the mediastinum or into the retroperitoneal cavity, according to the location of the primary focus. A posterior route leads toward the dura causing pachymeningitis and medullary compression. A lateral route extends between bodies and transverse processes. In the lumbar and low dorsal spine the invasion of the psoas sheath causing psoas contracture is a very common occurrence. In our series five cases showed psoas infiltration, one bilaterally. In one case involving the spine from the sixth to the twelfth dorsal vertebrae, a prevertebral abscess developed. Sciatic radiation from pressure upon the lumbar sacral plexus by the forming abscess was observed in one instance. This case was a man of forty-seven who developed subacute osteomyelitis following trauma. Pain in the legs, in hips and sciatic radiation was an initial symptom, it was associated later by sacroiliac and sacrolumbar radiation. Here the x-ray showed destruction of the fourth lumbar vertebra. This patient developed a lumbar sinus which required rather extensive drainage from which he is now making a gradual but steady recovery. The very extensive scar tissue in-

volving the region of the lumbosacral vertebrae seems to give sufficient explanation for the neuritic symptoms.

Differential Diagnosis

In the acute form the early signs of purulent osteomyelitis of the vertebral bodies are not very characteristic and errors in diagnosis are frequently made; besides it is often impossible to obtain a good examination of the partly comatosed patient. The symptoms may resemble rheumatic fever, typhoid fever, peritonitis, appendicitis, pleurisy, pneumonia, Landry's palsy, or spinal meningitis. The diagnosis rests primarily upon the local signs, that is, pressure pain, referred pain, induration, swelling, and fluctuation. The most important symptom is pressure pain at the site of the disease and surrounding region. It usually appears before acute inflammatory symptoms are visible, such as swelling and edema.

The cases reported were all seen in chronic stage although 50 per cent had an acute beginning. In this stage other differential points must be considered. A condition which most often simulates osteomyelitis is Pott's disease, and it takes the most careful history with special consideration of onset and course, and painstaking analysis of all clinical signs to make the differential diagnosis. Wasserman and Von Pirquet tests must be made in all cases. Differentiation from lues of the spine, especially gummatous lesions is likewise of importance.

Prognosis

Since all of the cases of the writer's, even those who had a definite acute beginning, were seen in the subacute or chronic stage, so the prognosis of this series was that of the subacute or chronic form of pyogenic osteomyelitis of the spine in general.

The outlook in the acute form is very grave, the mortality being, according to Mathieu, 46 per cent. The prospect for life in the subacute and chronic forms are infinitely better. Death is usually due to complications, such as extension of the abscess into the meninges, retropleural abscess, retropharyngeal abscesses, or collection of pus in the posterior mediastinum.

One of the twelve cases I am reporting died; of those with acute onset, three were improved or cured at the time of discharge, two were not improved, that is, were still suffering from complications which made the prognosis doubtful, one patient died. Of the cases with subacute and

chronic onset all but one were discharged greatly improved or cured.

The Treatment

Surgical interference is indicated in the presence of osteomyelitic abscesses which demand, as a rule, free incision and drainage. This will apply to the majority of acute and subacute forms which are associated with extensive bone destruction.

In the writer's series there were a number of cases of milder onset with no demonstrable pus collection either at the site of the vertebral bodies, or those of migratory character, and these cases recovered by conservative treatment alone. Operations were performed for the evacuation of abscesses in five cases.

(F. B., forty-seven years.) Subacute onset of osteomyelitis several months previous. There was destruction of the fourth lumbar vertebra. The principal symptoms were pain and sciatic radiation. Operation was performed as follows: A Royle incision was made along the rectus spinae muscle of the right side, this incision proceeded in the depths following the tract of a sinus which had become established after the previous operation for drainage performed elsewhere. Dissection followed the outer border of the rectus spinae muscle and around the quadratus lumborum to in front of the vertebral bodies. Small pus pockets were opened and evacuated. The cavity was loosely packed with vaseline strips. Following the operation there was a steady fall in the temperature and a rapid improvement of the general condition. This patient was discharged greatly improved four weeks after the operation.

(M. T., sixteen year old male.) Osteomyelitis of the lumbosacral region of the left side. Acute onset following an operation and subsequent infected operative hematoma. In this case the lumbar regions were explored as well as the region of the sacroiliac joint, and a sequestrum was removed. A second incision performed several months later necessitated partial resection of the os ilei. The organism recovered was staphylococcus aureus. The patient went on to recovery.

(J. B., thirty-four year old male.) Osteomyelitis of the sacrum and os pubis. Chronic onset. Drainage of the sacrum and os ilei by posterior incision extended to the gluteus maximus region through which the posterior rim of the os ischii was drained. This patient likewise went on to recovery after a stormy convalescence. The bacteriological examination showed staphylococcus aureus as the organ-

ism. The guinea pig was negative for tuberculosis.

Technique of Drainage of Abscesses

The retropharyngeal abscess should be opened through the posterior pharyngeal wall only in cases of emergency, otherwise it is better to drain through the lateral triangle of the neck.

Prevertebral and mediastinal abscesses can be reached by resection of the costotransverse articulation.

The psoas abscess is best reached by an anterior incision such as is practiced for the ligation of the common iliac artery.

In the drainage of the presacral abscess, one may use with advantage, the technic of Picqué consisting of total or partial resection of the sacrum. This latter method we have used in several cases with satisfactory results.

The drainage of the interspinal abscesses necessitates a laminectomy in all cases in which the disease is located in the neural arches. This was the case in one of our series. (A girl of seventeen suffering with congenital cervicodorsal scoliosis suddenly developed under signs of meningitis an acute osteomyelitis of the neural arches of one of the cervical vertebra. An abscess was opened and drained by laminectomy.)

Operations upon the spinal bodies themselves are indicated in acute stages where rapid and adequate drainage of the focus is imperative. At the lumbar region an incision is recommended along the external border of the sacrospinalis muscle which reaches the vertebral bodies through the lateral aspect. We have used this route in two of our cases to reach prevertebral abscesses.

In the dorsal region the approach to the vertebral body necessitates costotransversectomy. This means the removal of the transverse process with the adjacent portions of ribs, head and neck.

For the cervical region the best incision is along the posterior border of the sternocleidomastoid muscle, following the run of the scalenae to the anterior and lateral portions of the vertebral bodies.

Conclusion

As a rule, in osteomyelitis of the spine every effort must be bent toward early recognition and early drainage. In the acute form, involving the vertebral bodies, drainage of the bodies of the dorsal spine is best accomplished through laminectomy. In the forms involving arches and pedicles the problems are very

much easier; both that of recognition and that of surgical interference.

Para and prevertebral abscesses as well as those accumulating in the retromediastinal and retroperitoneal cavities likewise need radical and speedy evacuation. The chances for recovery are greatly improved in subacute and chronic forms of vertebral osteomyelitis. Many cases of chronic form with slow destruction and early sterilization of the abscess are successfully treated conservatively by recumbency and rest.

SYMPTOMS OF SOME RECTAL CONDITIONS AND THEIR TREATMENT BY AMBULATORY METHODS.*

GUY B. ANDERSON, M.D., Ackley

The purpose of this paper is to bring to your attention some conditions met with almost daily in a woefully neglected part of the body—namely, the rectum, and the treatment by non-confining or ambulatory methods.

Being in general practice myself, it is presented to other general practitioners with the hope that the ideas contained herein will be of some benefit to them. My reasons for this are three.

First. According to several outstanding men in the profession, about ninety per cent of all cases of illness can be handled by the general practitioners, the remaining ten per cent needing the service of the specialist.

Second. It is stated that from ten to twenty percent of the population of the U. S. are afflicted with some rectal condition.

Third. With the exception of cancer of the rectum, tuberculosis of the rectum, a very small percentage, indeed, of severe complicated cases of fistula, and a few congenital deformities of the parts, ninety-five to ninety-eight per cent of rectal cases can be successfully handled in the doctor's office without hospital confinement. However, I hope the special men present will give us the benefit of their experience and add what they can.

The Examination. First I want to make a plea for a thorough and careful examination of the lower bowel in every case that presents any of the following symptoms or conditions: Pain in or about the rectum, hips, back, lower abdomen, across the upper abdomen, pain referable to the pelvic organs as uterus and bladder, constipation, bleeding diarrhoea, flatulency, difficulty at stool, lack of desire or fullness after stool, itching about the anus, general toxemia, blotched skin, loss of

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weight, restlessness whether slight or coming under the term neurosis, and many other symptoms all of which may be due to some rectal pathology. We are so apt to dismiss the patient with some such remark as "There isn't much the matter." or "It's your nerves, I'll give you some medicine for that. Report in a few days," etc., simply because we do not want to bother making a rectal examination. Too few such examinations are being made.

I dare say only a small percentage of practitioners have seen the inside of the rectum since their college days and even then not often. True many insert the finger, but no examination is complete without a good look into the lower bowel. Too much is taken for granted and too often serious consequences result which may have been averted by a careful inspection through a speculum. This is particularly true of prolapse of the mucosa, some cases of cancer, torn down papillae and internal hemorrhoids. Very often the prolapse or piles are severe and yet nothing out of the ordinary be determined by the finger.

In making the examination, the external parts should be inspected for local evidence of conditions within. Among these may be mentioned redness, chafing, excoriations from scratching, edematous or thick leathery skin, redundancy of tissue, nodules, protrusion, retraction, discharge, etc. Palpation will elicit tenderness if present, also resistant or flabby tissue.

All that is needed is a table, a good light, a few good specula, and the Brinkerhoff is perhaps the best for inspecting the lower parts, any good 'scope for the higher parts. The patient is placed on the table in a lateral position, the one best suited to you, with the legs equally flexed at the knees and pulled well up toward the abdomen. This position gives better relaxation of the parts.

Inform the patient you are going to feel in the rectum first, then gently insert the lubricated finger. This is done to put the patient at ease because we are all fearful of attacks from behind, and you are working from behind. Man will fight from in front but flees from attacks from behind. As your finger enters, test the tone of the sphincters. If there is too much resistance, try to determine if it is due to fear or modesty, especially in females. With these eliminated, bear in mind the possibility of a fissure, cryptitis, torn down papilla, fistula, abscess or ulcer because any of these will give a more or less resistant sphincter and nearly always produce pain. You will discover that these tender areas lie for the most part so as to involve the last one to two inches of the rectum or anal canal, or deeper structures, i. e., from the pectinate line down,

sometimes called the linea dentata. This is a point well worth remembering and explains to a large extent why cancer, ulcerations, etc., show pain so seldom. It would be much better for the patient if he could have pain early with cancer when the surgeon could offer more hope of cure. Determine any hard or soft areas, masses, nodules, fecal contents, etc. Bear also in mind that seldom are you able to determine the presence of internal hemorrhoids or prolapse with the finger. And yet there are many men who will say there are or are not piles by inserting the finger. It cannot be done and if you understand the nature of either condition, you will know why.

Next insert a warm, well lubricated speculum as far as it will go rotating it as it enters, pointing it first backward to avoid the prostate, uterus or other pelvic viscera, then gradually forward and upward. Withdraw the slide of the Brinkerhoff slowly and inspect the parts exposed. Next withdraw the speculum, replace the slide and insert again this time inspecting another area or quadrant. Usually a quadrant may be inspected each time. If you need to examine higher up, use one of the longer Brinkerhoffs or a sigmoidoscope changing the position of the patient as needed.

I am presuming you know the difference between normal and abnormal conditions in the rectum as viewed thru a speculum so will pass on to a discussion of some symptoms. Before doing so, however, allow me to call your attention to the nerve supply of the rectum in order that some of the symptoms produced by pathology in this region, especially found in parts away from the site—the ones which throw us off the track more than anything else, may be better understood. The internal sphincter, formed by the circular fibres of the gut, is abundantly supplied by branches of the sympathetic system coming from the hypogastric, mesenteric and sacral plexuses. Because of some more or less active filaments of nerves from the cerebro-spinal system reaching the muscular and sub-mucous coats, some cases will experience what they term "deep-seated" pains while others will not complain even when suffering from cancer, ulcer or severe hemorrhoids. The external sphincter, the anal mucosa, levator ani, and skin of the anal region are supplied by branches from the second, third, fourth and fifth sacral nerves, which are more or less related to the branches of the sympathetic system which accounts perhaps, for some of the strange reflexes arising from lesions and operations of the anal canal.

Pain. It may be constant; may occur before, during or after stool. It may be referred to the

epigastrium before the bowels move and disappear after movement without suggesting a lesion in the rectum. This is often termed spastic colitis and yet may be due to a small fissure in ano, cryptitis, a slightly torn down papilla or an overgrown papilla. There may be headache caused by some rectal affair. This headache is usually occipital and may extend down the nape of the neck. If of a slight nature it may be relieved by an enema, but if due to real pathology it may persist till the trouble is corrected. This type of headache may be mistaken for a renal symptom. Pain or aches in the back, hips, legs, lower abdomen often termed rheumatic may be caused by rectal conditions. Urinary symptoms such as painful or frequent micturition, some cases of dysmenorrhoea, "uterine" or "ovarian neuralgia" may be caused by an irritation in the rectum. Very often, as the gynecologist knows, a bad case of leucorrhoea may be cured by treating the rectal condition with no attention to the uterus except that a thorough examination is made of it to rule out any trouble with the uterus or its appendages. Treating the rectum will not cure any uterine condition if it is not due to a rectal condition, but in cases of leucorrhoea which do not respond to the regular treatment, a careful examination will often reveal the seat of the trouble in the rectum. Recently I had three cases within one week who came in for relief from a discharge and in all of them the condition was due to a reflex from the rectal condition, which in all three was internal hemorrhoids, one or more ulcers, a torn down or hypertrophied papilla, and all cleared up without any local treatment as soon as these were treated.

If the pain is smarting or burning during or after defecation, it is probably due to fissure in ano or painful ulcer. If it is a constant, dull throbbing pain, recent in origin, it is suggestive of peri-rectal or ischio-rectal abscess; a constant, localized pain or soreness over an acute protrusion at the verge is suggestive of a thrombosed anal vein or external pile; a feeling of pressure, fullness, incomplete bowel movement suggests an inflammatory condition of the rectal mucosa, cancer or amebic dysentery. Uncomplicated internal piles and prolapse of the mucosa cause no pain locally but rather pain referred to the back, sciatic nerve, uterus, etc.

Bleeding. Painless bleeding of bright red blood at stool or during a heavy lift is suggestive of internal hemorrhoids; if associated with pain at stool or after, it indicates fissure or anal ulcer; bright red blood with no stool very often means strawberry piles (mucous piles); passage of old blood, dark blood clots and mucus suggest can-

cer or ulceration higher up in the bowel. Bleeding after the cure of internal hemorrhoids nearly always means cancer of the rectum or of some other part of the large bowel.

Constipation. As it pertains to the rectum, it may be due to internal piles, prolapse of the mucosa covering the papillae causing a greater or less degree of loss of sensation to stool, partial stenosis from a mal-formed anal canal or outlet or following the operative removal of piles either by the usual procedure or the electrical cooking process, all of which methods are being and should be abandoned for the more rational and more satisfactory ambulant method, just as the newer method of treating varicose veins by injection is displacing the older surgical removal method. Hypertrophies, new growths, fissure or anal ulcer may cause constipation either because of mechanical interference or because of pain at stool.

To illustrate the effect of prolapse as a factor in causing constipation, allow me to cite the following: Four cases came in complaining of aches and pains in various parts of the body, with a feeling of not being able to do their work, with no appetite, fitful sleep, blotchy skin, irritable disposition, etc., with disgust for almost everything. After a careful history and general examination, and finding nothing that could account for the condition, each was questioned about elimination by way of the kidneys and bowels. Urinary findings were negative, but in each of these cases was the story of lack of desire to stool and fullness, one even remarking that he often had no sensation for as long as six days, and that when his bowels did move it was not satisfactory but felt as though something was left in. Each case was one of being from twenty-four hours to almost a week late. Examination of the rectum revealed a loosened mucosa and when this was tightened down to the muscular wall again, and the patients ate properly, discarded cathartics, drank plenty of water, all recovered and are now going about their work as formerly with renewed vigor.

Time does not permit a more lengthy discussion of symptoms so we shall take up some conditions and the treatment by non-confining or ambulatory methods.

With the exceptions noted before, nearly all rectal cases can be successfully treated in the doctor's office without loss of time from work and with little or no inconvenience if properly done.

By far the greatest number of cases met with is hemorrhoids either internal or external, and I wish to make this statement that all pile cases, no matter how complicated they may seem, if given the proper preparatory treatment are easily and permanently cured by modern injection meth-

ods. And also, that almost never should any of the hemorrhoidal veins be removed or destroyed. The days of slough are past, likewise incontinence or stenosis so often seen following rectal surgery. With the injection method if properly done, these sequelae mean a bungling of the job.

Let us assume a case of acute protrusion of piles comes to our attention. The usual procedure is to send the patient to the hospital where we or someone else operates on him, removing all the dilated veins both without and within after forcible dilatation, together with all the loose tissue the operator thinks he dare remove, followed by a pack usually. What is the result? Usually a general ether anesthesia, severe post operative pain, more or less, more or less nausea or vomiting, confinement for two days to as many weeks, constipation for fear of pain with stool or hemorrhage, then home and unable to work for another week with more or less pain, and later possibly more or less stenosis and sometimes incontinence from severance of the sphincter. Contrast this with the ambulant method. Any clots present removed under a weak local anesthetic, the protruding mass returned which is easily and painlessly done, the injection fluid (five per cent phenol in vegetable oil) deposited beneath the mucosa as high up as needed in one or more places depending on the nature of the case, a bland ointment inserted into the rectum with or without a finger of cotton, a pressure pad of cotton outside held in place with a T bandage. Patient goes about work as usual and returns in a day or two to a week for the next treatment. Result. No loss of time; very little if any pain, no constipation, no destruction of tissue, no loss of function or incontinence. All tissue returned to normal as you proceed with treatments, while with the older method you hope to cure and often fail because the patient will not readily consent to the second torture if you fail the first time. The fluid is never injected into the pile tumor as some companies having it for sale advocate. Some use quinine and urea hydrochloride in the strength of two per cent up to twenty per cent. This hardens the tissues and often results later in fissure or return of the piles.

Prolapse of the Mucosa. The usual procedure is to do something to either remove this tissue by cutting it out, or burning it with some strong acid or cautery making linear scars in the hope that the resulting scars will take up the slack and yet not too much as to cause stenosis or stricture. You may have seen the results of such methods.

Ambulant method. The injection fluid is deposited a little deeper than in hemorrhoidal cases,

in several spots at each treatment, first as high up as needed and at each subsequent treatment a little lower till all has been treated and fastened back in place. The result is no confinement, no loss of tissue and none of the other bad effects following the older surgical treatment.

Fissure in Ano or Painful Ulcer. The usual procedure is to put the patient to sleep with ether, dilate the sphincters forcibly, incise through the fissure to the muscle, scrape the base, pack with gauze, confine for one or more days. Result. Cure, but with confinement and other disagreeable features. Ambulant method. Short general anesthesia using ethyl chloride or somnoform; dilate the sphincters gently using the fingers only, never any stretching instruments, remove any necrotic tissue present, swab with any good antiseptic, insert a bland ointment, no pack and fissure heals in a few days. Let me state that it is the dilatation of the sphincters and this alone that cures the fissure. Patient gets up from table and goes about work as usual with a feeling of great relief. About 2 or 3 minutes is all the time you need usually.

Hypertrophied papillae, polypi, torn down papillae, sentinel piles, etc., are removed under a weak local anesthetic, first being snipped off with scissors, the stump touch lightly with the hot tip to seal the vessels and aid healing, and a bland ointment inserted.

Fistula. The treatment of this condition would require too much time to give in detail here but suffice it to say that very few indeed cannot be successfully treated by ambulant methods using either the "step" method, the "sloughing paste," "short circuiting" or a combination of these.

Now in closing, a word about cancer of the rectum. We should be on the lookout for this all the time, and if found or suspected the case should be sent to the surgeon or radiologist for treatment and this as early as possible. Better err in being too hasty to get the case into competent hands than to wait too long, always remembering the symptoms and bearing in mind that pain is usually a late symptom, and that usually the case is too far advanced by this time for the surgeon to do much for the patient. As people learn of your success in the ambulant treatment of rectal cases, more and more will come to you, and thus you will have a greater opportunity to help in saving a life if you can convince the patient to give the surgeon a fair chance.

In discussing cancer of the rectum, I have called to my aid men who know more about it than I ever hope to know.

If we consider the large bowel alone, cancer of the rectum constitutes about one third of the

cases, the sigmoid, a little over a third, and the rest of the colon, a little less than a third. When compared to the rest of the body, the rectum claims about five percent of the cases of cancer.

Dr. J. Chalmers DaCosta states that he thinks it is a general belief among surgeons that cancers of the rectum number about five per cent among other cancers, and if one includes cancers of the sigmoid, the percentage will go up to well over six per cent. John B. Deaver says, "I find that our proportion of cancer of the rectum to cancer of the rest of the body system is four and seven-tenths per cent." Charles H. Mayo gives me five per cent. So it is up to us as general practitioners to watch for signs of this dreaded condition, for no doubt, some cases are due to neglected rectal conditions which we see almost daily.

I have tried in the time allotted to bring out some ideas for you to think about and discuss and I hope you will go home and apply them for they are practical.

DaCosta, J. Chalmers. Personal communication.

Deaver, John B. Personal communication.

Mayo, Charles H. Personal communication.

Discussion

Dr. W. W. Bowen, Fort Dodge—The essayist has presented a very interesting and practical paper, particularly for the use of nearly every man here, the general practitioner. I have for a long time been convinced that most rectal work for hemorrhoids and other conditions, can be just as well done in the office as in the hospital. For a long time I have not taken the patient to a hospital and performed a straight out-and-out operation for external hemorrhoids, they are all treated in the office by giving a local anesthetic and removing the tag, if it is a tag; if one of the blue piles is protruding and painful, all that is necessary is to slit it open and let the clot out.

We hardly ever read a paper that we do not find something one might find fault about, and I am a little dubious about some of the procedures mentioned by Dr. Anderson. I do not see how leukorrhea can be cured by treating the rectum. I am reminded that years ago we believed we could cure many conditions by removing the ovaries. I am in perfect harmony with the essayist regarding the futility in many cases of examining the rectum by the finger. Of course, the finger examination is better than no examination at all, but I know quite well there are cases in which one cannot determine by the finger alone whether the patient has an internal hemorrhoid or prolapse of the mucosa. Only recently I saw the case of a woman who had been perfectly well, but suddenly there was a hemorrhage from the bowel and a few days later she had another one which was quite severe. I made rectal examination with the finger and could find nothing wrong. I had that patient come in and spent several days examining the gastro-intestinal tract, but

found nothing wrong. The last thing I intended to do was to examine the sigmoid, when that was the first thing I should have done because in this I found a small hemorrhoid that had on it an ulcer. If I had used a speculum in the first place this protracted study of the case would have been avoided.

I think it is a pretty strong statement to say that ninety-eight per cent, or practically all hemorrhoids, can be successfully treated in the office. This seems to me to indicate a little too much enthusiasm. In the case of a hemorrhoid that is large with the tissues about it indurated, you know that in a great many cases when you take those off they will contain fifteen or twenty small clots of blood with an inflammatory condition all around them, in which condition I do not believe we would have much success in treating them by the ambulatory method. However, I may be wrong about that.

I notice that the doctor's favorite antiseptic for treating these conditions is a five per cent solution of phenol. That may be all right, but I have never had the nerve to inject phenol in the rectum. In my experience as a young physician a solution of phenol was frequently used as a dressing for hand or finger, but through wrapping the injured member up in that way there often developed a violent dermatitis with gangrene developing, and many an individual has lost a finger from the use of phenol. Therefore it seems to me we should not put in phenol as strong as five per cent where it is liable to cause a slough; in fact, I do not think anything that might bring about a slough should be used, and it is painful and deforming. There are other solutions coming into use for the treatment of varicose veins and hemorrhoids and they are much the same, among them being five per cent phenol in oil. A sodium chloride solution twenty-five per cent seems to have as good an effect in treating varicose veins as something much stronger. Also a solution of glucose even as low as five per cent seems to have a very good effect. Then again, urea and quinine hydrochloride has often been employed in these conditions.

The doctor made a pertinent remark in regard to cancer of the rectum, and he also made one remark to which I take exception; and that is to refer these cases to the radiologist. I have had some experience with radium in the rectum and I am convinced that the treatment has no good effect on cancer of the rectum. Also it is no good in combating hypertrophy of the prostate as it was used a few years ago. In cancer of the uterus, particularly of the cervix, I think it is without doubt the best of all remedies, and there are other situations where it is indicated, but in cancer of the rectum I think it is of very little use.

Dr. Chas. H. Magee, Burlington—We have heard a vital subject discussed this morning and I am glad it has been considered so thoroughly. In this connection I want to relate a case that may give you a point if you should ever be caught as I was. A

woman was sent to me from St. Louis where she had been operated on two or three times for piles and who finally returned to her mother to die from cancer of the rectum. On examination I found that the condition was simply a stricture and a very tight one. I did not happen to have a rubber tube dilator, so through the Williams Company I sent for two or three Wales tubes. While waiting for their arrival I was driven to some method of dilating this stricture. I used a small dilator, but employed this subterfuge: I procured a sperm candle which I shaved down to a point, and it served as a support as well as any rubber tube you ever saw.

Dr. Anderson (closing)—Dr. Bowen brought up the question of using five per cent phenol as an injection, and mentioned that it caused sloughing. Perhaps some of you did not hear it, but in the paper I made the statement that any slough caused by the injection method was due to bungling of the job. We never produce a slough with five per cent phenol if used right. If properly used it may be employed in eight or ten per cent solution, and you will remember I also said that we should never inject the solution into the pile itself. Years ago DaCosta told us we should inject pure carbolic acid, which is liquefied phenol and glycerin, into the pile mass and rot it off, and he showed us cases with slough and stricture and the pile almost rotted off. It is very rare in a pile case to see a drop of blood, and you can leave the speculum in the rectum as long as five minutes without drawing blood. You can dress a finger with five or eight per cent phenol with oil and it will not cause phenol gangrene if used properly. I think the solution Dr. Bowen meant was a stronger one. We have all seen such results from a stronger solution of phenol. We do not use that in rectal work except in topical applications the same as elsewhere.

Let my thumb here represent the mass either of prolapse or hemorrhoidal tissue; you insert the needle towards the crest of this mass just beneath the mucous membrane and start your injection slowly. You do not thrust the needle in but push it in just as you would a hypodermic, then inject slowly; if a white spot appears you are not deep enough; withdraw and insert the needle in another place and a little deeper.

As to how much of the solution should be put in, sometimes one-half of one c.c., sometimes ten c.c. Ordinarily we never use more than ten c.c. I have seen some use as much as 30 c.c. of phenol, but I would not care to use that much. You inject the fluid until you see the tissues commence to raise up, and if you look closely you will find that on top of the mass little red lines appear—they appear as though done with a pen. Those are the small capillaries that are coming up. They are not injected with phenol solution, that is not why they are red. It is simply a reaction. You inject until you see these lines, then insert the needle in another place. I usually take a quadrant here and here and here,

and those treatments run two days or a week or ten days apart.

In cases of prolapse I go a little deeper. Phenol first causes a mild chemical irritation, then an induration, and if a day or two later you put the finger in the rectum you will find more or less of a tumor mass there larger and firmer than the one previously present. Upon inspection you find that it is red clear across. You do not see the striae any more, the entire surface is red and healthy appearing, the tissues have resumed their normal softness, and the external membrane is plastered right back to the submucous and muscular coats of the bowel in the normal manner. If in a case of prolapse you proceed in a spiral-like manner, you can tighten up the tissues.

I have treated these cases by the dozens and have never seen a case of piles which, with proper preparatory treatment, could not be cured provided the work was done right, but one cannot slop the solution around or go in and mutilate the tissues. It is necessary to use just as much judgment in this as in any other operation. I have had cases come in with a mass that wide and that thick protruding from the rectum (indicating), the patient vomiting all the way from the door to the table; and twenty minutes later I would send those people out relieved, and in two or three days they would return with the condition practically restored to normal.

THE TRAINING OF HEALTH OFFICERS AND PUBLIC HEALTH NURSES*

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The proper training of health officers and public health nurses is a matter of very great importance to the future of health work in this country. This is fully recognized in states which have had experience in whole-time local health work. Its importance may not be fully appreciated in states where such work is in its developmental stages. It is important that local whole-time health work be established—it is just as important that it be directed by properly trained personnel. In the brief time allotted to this subject, it will be possible to mention and discuss in outline form, only a very few of the points which are pertinent.

The subject itself naturally raises three questions; namely:

- I Why should health officers and public health nurses be trained?
- II In what should they be trained?
- III Where may they be trained?

* Read before the Iowa State Department of Health Conference, April 3, 1930.

I Why should health officers and public health nurses be trained?

It might be assumed that after physicians and nurses have gone through the strenuous period of preparation required for their professions, they would thereby be fully prepared for their responsibilities in the field of public health. This is by no means the case. A career in public health is not anticipated by most undergraduates. The courses of study as a general rule, offer very little if any detailed preparation for such work. The result is that most graduates in either profession have a very hazy idea as to just what is connoted by the term "public health work."

The following reasons obtain as to why individuals assuming these responsibilities should undergo special preparatory training:

a) *The work is highly specialized.*

Physicians and graduate nurses who are unfamiliar with the details, are prone to overlook the fact that the practice of public health is as much a specialty as is that of any specialty in medicine or in nursing. It bears little similarity to the care of individual patients. Its emphasis is placed upon entirely different aspects of diseases or of environmental conditions. Its armamentarium is drawn from sources, some of which are beyond the previous interest of the ordinarily trained graduates. Physicians and nurses may doubt these statements. They will not doubt them 48 hours after they have undertaken public health responsibilities without such preparation.

b) *Modern conditions have made health work infinitely more complex than it has ever been before.*

In this connection, it is necessary to call attention to but one modern development to illustrate how complex a problem it has become to safeguard the health of a community. That one development is the present-day method of rapid transportation. The good roads and automobiles have revolutionized our methods of living. They have transformed our population into a migratory one. Whereas 40 or 50 years ago people undertook journeys usually as a matter of necessity, today there is hardly a family in this entire state which has remained for even one month within its own township. Throughout this country, every day in the year migrations of populations take place which far surpass the total numbers involved in the crusades of medieval history. The dangers inherent in this situation are obvious. The difficulties of meeting them are very great. To undertake to meet them without special preparation is

bound to be prejudicial to the best interests of the public.

c) *Whole-time health officers and public health nurses, if they are to justify the expense of maintaining them, must be capable of leadership in the health work of their communities.*

Leadership is not inherent in any position. Leadership is a quality pertaining to individual personality. Sound leadership is predicated upon superior ability. Superior ability is based upon superior training and knowledge. The health officer or the public health nurse must *know* their fields better than anyone else in the community if they are to win and hold acceptance as leaders. There is only one way to *know*, namely, by study. This study may and should be done in part before the responsibilities are assumed. It will continue throughout one's active connection with public health work if one is worthy of the responsibility. But it is unfair to the community for all of such knowledge to be gained at public expense through experience.

d) *Whole-time health officers and public health nurses have a responsibility in molding the general health activities of the state and nation.*

If health work in this country is to progress along sound lines its progress must be based upon practical experience. Obviously, this experience is largely limited to those actively engaged in the work. Unless such individuals are trained leaders how can they contribute methods or adaptations which are of general value? Until we have such trained personnel in the actual work, all health work is at the mercy of arm-chair theorists, enthusiasts and propagandists.

From these considerations it would appear that although it is a matter of urgent importance that whole-time health departments be generally established it is equally important that the personnel be adequately trained for their tasks.

II In what should health officers and public health nurses be trained?

In general, it should be required of the health officer that inasmuch as he is to be the directing head of the organization, he should know in detail the work of each division which will be operating under him. He should know all about the scope of activities and the methods employed in public health nursing if he is to insure sound programs in this field. He should know more about sanitary engineering and sanitary inspections, and in fact, the whole field of environmental hygiene than his own inspector knows. In many cases he will have to train his own inspector. He must know in de-

tail, the principles of organization of his department, its relations to all local, state, and national organizations, the legal powers and limitations of his work; the proper and legal steps to follow in dealing with the numerous problems which will arise, and the methods and sources of material for the public health educational work for which he will be responsible. In addition, he must have as thorough an acquaintance as possible with vital statistics and epidemiology.

The public health nurse should be especially trained in the methods which have proved to be of value in dealing with the problems which lie within her field: prenatal, maternal, infant, preschool, school-child hygiene, dental hygiene, mental hygiene, social hygiene and the like. She must know how to adjust her activities to the social conditions of the home and the community. Many of her problems involve intrusion into the field of social welfare. In this connection she must know in detail how to deal, legally and harmoniously, and to the best interests of the family and the community with the cases which are constantly coming under her responsibility. She should, further, understand in detail the system of reporting her work. The reports required of public health nurses are complicated documents, especially where maternity and infant welfare activities must be reported separately. Previous training along this line will greatly simplify the work of the nurse in field service.

III Where can health officers and public health nurses be trained?

This depends upon the degree of training which is desired. There are two general types of training provided; namely, that given in training stations, and that given in institutions. In the former, the greater emphasis is placed upon the practical aspects of the work, although exceptions to this will be noted. In the institutions great emphasis is placed upon the instructional aspects of the work with provision for such practical experience as may be available to the institution in question.

Training stations:

At Indianola, Mississippi, the International Health Division of the Rockefeller Foundation cooperates with the State Department of Health in maintaining a training station based upon a whole-time county health department. Here the prospective health officers and public health nurses are given a course of from one to three months consisting of conferences and field work.

At Nashville, Tennessee, Vanderbilt University cooperates with the Tennessee State Department of Health in maintaining a training course covering

three months. Approximately half is devoted to intra-mural instruction given by a staff drawn from each of the cooperating organizations. The remainder of the course is spent in the field with several of the outstanding county health departments in that state.

At Lansing, Michigan, the International Health Division of the Rockefeller Foundation cooperates with the State Department of Health in maintaining a training station, the course of which lasts for three months. Here also the first half is devoted to instructional courses which are given by a faculty drawn from the State Department of Health and other state departments. The remainder of the time is spent in practical work in the several whole-time county health departments which have been organized.

Entrance to these courses is limited to those who have been recommended by a state commissioner of health. Accepted candidates are given a small per diem stipend, and no tuition charges are made. No certificates are issued. Even if the time spent in these courses is accepted by institutions, the credit is of necessity a small part of the required credits for a certificate or other degree.

Your own State Department of Health has under consideration a cooperative arrangement with the State University of Iowa for the establishment of special facilities for training both health officers and public health nurses for work within this state. When a demand arises for such courses, they will be offered. It is hoped that within a short time a sufficient number of counties will have been organized to enable practical experience to be combined with instructional work. Under the arrangement contemplated, it would be possible for the candidate to secure credits which could be applied toward a certificate of public health, and to complete the required work in stages.

A number of institutions offer definite courses leading to certificate or doctorate degrees in public health. If one is to make public health work a life career, it would be a very wise step to take a full course in one of the leading institutions early in such a career. To list all of these institutions would exceed the limits of time allotted to this paper. To present only a partial list might be considered discriminatory. Those interested are referred to the advertisements in the various public health journals.

In conclusion, permit me to urge again the importance to the individual health worker, to the community, and to public health work as a whole, of requiring a proper preparation on the part of health officers and public health nurses for their responsibilities.

PERIPHERAL NERVE INJURIES

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Careful and systematic management of peripheral nerve lesions, over a long period of time, will usually be rewarded by a good functional result.

It is essential to have an exact knowledge of the type and location of injury before any plan of treatment is carried out and subsequent observations must be faithfully recorded to have a definite check on the progress and extent of the lesion.

Because of individual variance it is not good judgment to outline a fixed program for the care of these cases but treatment should depend upon changes occurring at different stages of the disability. An attempt will be made to discuss the variations of these injuries and the general procedure.

DIAGNOSIS

In testing for both motor and sensory lesions, it is time well spent to carefully explain the method and object of examination.

(a) *MOTOR LOSS*.—The examiner must distinguish between muscle action as a *prime mover* and as *synergic* or *fixation* action.

In telling the patient to make a definite movement and the muscle is seen or felt to contract, it is known as a *prime mover*.

However in the case of injury to the musculospiral nerve, the patient may not be able to voluntarily extend the wrist but on clenching the fist this action follows.

Another instance is observed in Erb's palsy, in which, when the fifth and sixth cervical nerves are injured, a patient is unable to bend his elbow. In the course of time he learns that after pronating the forearm he can flex the elbow, although he is making use of the wrist extensors to accomplish this object. These instances are known as trick movements and the observer should beware of them for two reasons; one, leads to an error in diagnosis and secondly, the patient develops a tendency to rely on these abnormal motions thus neglecting the voluntary efforts which are necessary for recovery. The examination of the small muscles of the hand for voluntary power is often extremely difficult and frequently the diagnosis rests on palpation of the muscles and their electrical reaction.

Response to electrical stimulation of muscle in nerve injuries should be considered in every examination but too much stress has been placed on this means of diagnosis.

To satisfactorily test the response of an in-

jured limb it should be warm and any edema present must be reduced as far as possible. Within a short time after complete division of a nerve the muscle ceases to respond to faradic stimulation.

Galvanic current causes a normal muscle to react briskly but when the conductivity of the nerve is destroyed, the response is evidenced by slow contraction and even slower relaxation. Improvement in the galvanic reaction may be brought about by nutritional treatment in the absence of nerve recovery. The muscle will improve with heat and massage but this must not be confused with returning function.

(b) *SENSORY LOSS*.—It is timely to reiterate the necessity of carefully explaining the purpose of a sensory examination to the patient and having him in a warm, comfortable atmosphere.

(1) Deep sensibility may be defined as the power of appreciating pressure and the ability to recognize posture and passive movements of the joints. This sense is important from an orthopedic standpoint because if it is present the tendons are usually intact.

(2) The area over which pain sensibility is diminished or lost is frequently ill-defined and merges into the boundaries of adjacent nerve supply. The limits of this analgesia vary from time to time dependent upon vascular changes in the skin. Often, after complete division of a nerve, the patient will complain of severe pain on stimulation. This zone has been referred to as a "hyperaesthetic" area but, in reality, the term is a misnomer because the sensation is a perverted response to a normal stimulus.

(3) Extreme care must be taken in testing for light or tactile sensation. The examiner should use either a camel's hair brush or wisp of cotton wool. The effect produced by delicate tactile impressions varies greatly with the leverage of the hairs and the thickness of the skin. Many a dilemma may be avoided if the examiner will shave the hairs over the suspected area.

(4) Responses to heat and cold, in a lesion of a single nerve, are not satisfactory and contribute little to the ultimate diagnosis.

(c) *VASOMOTOR, SECRETORY AND TROPHIC LESIONS.*

Changes in the vasomotor, secretory and nutritional functions are quite evident in injuries of peripheral nerves.

These phenomena are present to some degree when any large nerve trunk is divided, but are more pronounced with injuries of the median, ulnar and sciatic nerves. When a nerve is completely divided the area of skin involved becomes

discolored, inelastic and does not sweat. This is brought about by interruption of the vasoconstrictor fibers which are present in any motor or mixed nerve. In cold weather the extremity takes on a deep blue tinge and dependence causes edema. Trophic ulcers are usually the result of trauma to the analgesic area. Pressure from badly applied splints may be a causative factor in damage to the tissues.

It is surprising how readily these lesions heal after nerve suture even though evidences of returning function have not made an appearance.

Sometimes a large blood vessel lying alongside the nerve may be injured with resultant vascular changes. In cases of complete division of the nerve there is paralysis but when the interruption is incomplete there may result only severe pain and vasodilatation, as in causalgia. The nerves, with injury of which causalgia is associated, are usually the median, ulnar and sciatic.

In severe cases of causalgia the skin is smooth, glossy and may sweat profusely. Occasionally it is bright red or may be mottled red and white with little, if any, motor or sensory loss.

The nails grow more tapering; are thin and striated and frequently become exquisitely tender. The bones become brittle, tapering and often severe deformity ensues.

In spite of vigorous efforts at nutritional treatment the skin becomes dry, the muscles waste rapidly and gangrenous patches may appear over the affected area. The histological examination of the peripheral arteries of the foot by Stopford, in case of sciatic nerve injury without damage to the large arteries, showed thickening of the intima with great narrowing of the lumen.

DIFFERENTIAL DIAGNOSIS

Three points must be borne in mind before reaching a definite diagnosis of nerve injury.

(1) Trick movements, described above, which are usually an expression of cortical effort to compensate for diminished or lost function.

(2) Fibrotic changes in the joints which are caused by immobilization over too long a period or an inadequate vascular supply.

(3) Hysterical palsies, which can usually be ruled out by taking advantage of the patient's ignorance of anatomy and physiology. Babinski and Froment have described a group of cases following gunshot wounds in which the extremities are blue, cold and have atypical loss of function. Usually, in these cases, the deep reflexes are active and the muscles respond briskly to faradic stimulation.

TREATMENT

Examination and observation over a suitable period of time will usually determine the site of the lesion and conductivity of the nerve but further than that can only be determined by an exploratory operation.

Regardless of one's experience it is unwise to definitely prognosticate on a nerve lesion unless the ultimate outcome is very evident. The committee of British surgeons, who have compiled their experiences of war injuries in reference to nerve lesions, has given the following indications for operation.

(1) "Total loss of conductivity, sensory and motor, in the territory supplied by a nerve, persisting after an interval of two months during which proper treatment has been carried out. This interval is an arbitrary one; it allows time for the first appearance of signs of recovery, provided the lesion does not necessitate the lengthy process of regeneration."

(2) "Palpable neuromas at the site of injury of a nerve, the function of which is seriously destroyed."

(3) "When recovery has begun, but has not progressed to the usual rate, or has actually ceased; still more when function has relapsed."

(4) "Persistent, severe, intractable pain."

Many cases, which come to the neurosurgeon, have been operated and two months is not always long enough to wait before advising further interference. Little is to be gained by hurriedly operating especially if there is doubt as to the previous procedure. However, after four to six months, the surgeon is justified in exploring again if he is gravely in doubt as to the previous technique. Often one finds interposed veins or pieces of catgut and not infrequently a nerve has been sutured to the cut end of a tendon.

An unhealed wound should never be opened and if there is any doubt as to the possibility of latent sepsis the case must be strictly left alone. Much more is to be gained by watchful waiting than performing any type of nerve operation in an infected field.

TECHNIQUE OF OPERATION

The operator must be thoroughly acquainted with the anatomy of the nerve he plans to explore.

The skin incision should be long enough to adequately expose the injured nerve well above and below the site of the lesion. Some surgeons use a tourniquet or Esmarch bandage to produce a bloodless field but this is unsatisfactory because of subsequent venous oozing which may take place around the nerve. A post operative hemorrhage, large or small, fosters infection and promotes the

formation of unnecessary scar tissue. Although every good surgeon appreciates the necessity of strict asepsis one can never lay too much stress on this important precaution.

After the nerve is exposed and the site of injury is examined, the proximal and distal portions of the nerve should be carefully freed from surrounding structures. Sharp and heavy metal instruments must never be used in handling the nerve and if retraction is necessary tape or cotton strips are the safest means of avoiding permanent damage to the delicate tissue. The nerve should then be stimulated with a weak faradic current and its effects noted.

If there is any loss of conductivity one of three procedures may be followed, depending upon the type of lesion.

(1) Neurolysis is carried out if a nerve trunk, of normal appearance, is compressed by scar tissue or if the nerve is swollen over a considerable distance.

(2) Resection and suture is done when the lesion is circumscribed or if a neuroma is present. In resecting the abnormal trunk, the individual nerve fibers must be visible before a satisfactory approximation can be accomplished.

(3) In some instances it is impossible to bring the severed ends in opposition; they are tied together and the extremity is put in a position as to shorten the course of the nerve. The limb is gradually straightened and in about three weeks the wound is reopened and usually it is found the nerve has been lengthened enough to satisfactorily approximate the two ends. Catgut or silk may be used but the author prefers fine Japanese silk sutures through the sheath instead of the nerve.

POST OPERATIVE CARE

This phase of the treatment is probably the most important and certainly is the most trying for surgeon and patient. Immediately after operation the extremity is placed in splints; care must be taken that the bandages will not constrict the blood supply and the joints must have access to some motion. Adhesions must be prevented and the joint should not be continuously mobilized. It is essential that there must be close cooperation between the surgeon, masseur and patient to secure a good result.

Nutritional treatment in the form of heat, massage, electrical stimulation and re-education should begin about the tenth day and must be continued for weeks and months. Immersing the limb in a hot bath produces an excellent increase of blood supply and when trophic ulcers are present radiant heat may be used. Massage should be given ten to twenty minutes each day but it must not

proceed to the extent of producing muscle pain or fatigue. It is much better to do too little than to be too zealous in the matter.

Electrical stimulation can be carried out if it is properly used in the hands of a competent therapist.

Before the function begins to return the patient should be instructed in each muscle action and must faithfully attempt to follow this line of re-education. At first the masseur will have to help the patient in working the muscles and again caution must be exerted against fatigue.

Recovery will vary with the ability of the subject to train his cortex to interpret correctly data reaching it through pathways which have been unaccustomed to carrying these new impulses. The surgeon should, if possible, supervise this long period of post-operative care and be ever on the alert to prevent the adoption of easily acquired trick movements or the entire effort will be in vain.

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REPORT OF A CASE OF SPOROTRICHOSIS

By

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The first case of sporotrichosis was described by Schenck in 1898. Two years later Hektoen and Perkins reported the second case with similar pathological findings, naming the causative organism *Sporothrix Schenckii*.

REPORT OF CASE

S. H., white male, American, laborer, aged thirty-seven. The initial lesion was on the tip of the little finger of the left hand. Tumors later appeared on the forearm in a chain (Fig. 1). These were tender on pressure but otherwise gave rise to no annoying symptoms. The skin over the involved areas was normal except in the case of several of the nodules which were discharging and about which the skin was slightly reddened. There was nothing else of importance in the his-



Fig. 1. Photograph showing location of tumors in chain formation.

tory or the clinical findings. Fig. 2 shows the microscopic appearance of the organism.

COMMENT

The original point of infection in a case of



Fig. 2. Micro Photograph showing branched mycelium and spores of sporotrichosis.

sporotrichosis is usually an abrasion from a barb or thorn (Barbra and wild rose). The initial lesion suggests an abscess; puncture however yields a thick yellow exudate which is not pus. At the outset the process is acute and somewhat painful but later the lesions tend to resemble cold abscesses. The most common locations for sporotrichosis are the forearm and arm. Cases have been reported where the source of inoculation was in the foot or eyelid. Lesions also have been reported in the mouth associated with skin lesions elsewhere. The organism has been found in the mouths of men and rats as a saprophyte. In reported cases there have been no constitutional disturbances nor systemic manifestations. The cross section of a nodule is not easily differentiated from lues or tuberculosis microscopically. The yellow serous material in the center of the lesion is more pathognomonic of sporotrichosis. Cultures are easily grown at room temperature on practically any media.

The diagnosis as a rule is not difficult. The salient points are as follows: (1) A primary abrasion followed by tumors and cold abscesses in chain formation. (2) No constitutional symptoms nor systemic involvement. (3) Microscopic examination of cultures taken from the straw-colored fluid in the center of the abscess shows the organism. Rats and mice may be readily inoculated. (4) The failure of the abscesses to heal under ordinary measures of treatment.

In the treatment potassium iodide is a specific agent, the lesions showing a fairly rapid response to the use of this drug.

THE BRANCHIAL APPARATUS

The Pathologic Changes to Which It Gives Rise,
With Presentation of a Familial Group
of Fistulas

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A review of the relatively scant literature concerning the nature and origin of branchial cleft anomalies has revealed the following opinions:

1. That the embryonic branchial clefts are responsible for the so-called branchial cleft cysts and fistulas. (a) A fistulous opening or rest may persist from any of the four upper clefts or, more properly, grooves (von Hensinger, Bland-Sutton, von Cusset, His, etc.). (b) Only the second cleft can be at fault (Rabl, etc.). (c) The cervical sinus is responsible for the external aspect of the anomaly (von Ascherson, Kostaniecki, Milecki, His, etc.).

2. Not only the grooves but the thymic stalk play a very important role in their origin (Wenglowski).

It is the consensus of opinion that branchial cysts result from: (1) an active growth and desquamation of ectodermal rests and (2) an active growth and secretion of entodermal rests, which were included between the branchial arches during the first three weeks of intra uterine life. While this is a satisfactory enough explanation for the formation of cysts, the formation of fistulas is somewhat more difficult to understand. One is practically forced to say that either the thin entodermal-ectodermal groove membrane is in some way ruptured in fetal life or as Wenglowski believes, that a persistent thymic stalk is responsible. Either of these explanations is very difficult to accept as being satisfactory. If one studies the arches with respect to their content of the anlagen of cartilage, nerve, vessel and muscular structures to which they give rise, one can quite accurately predict the course which a fistula should take, assuming that it persisted from any one of the grooves. The data which has been collected on fistulas whose courses have been studied seems to point strongly to the fact that the

of the first pharyngeal cleft. In view of this it would seem to the authors that a branchial cleft fistula is the result of an attempt to form a second auditory canal, the usual tip of cartilage found at the external orifice being the attempt at the formation of the pinna: this has been termed a supernumerary or cervical auricle and would complete the picture of the anomalous analogy.

Though not much is said of cysts, fistulas show a definite familial and hereditary tendency and have, so far as we know, been inherited only through the mother.

CLINICAL FEATURES

The branchial cyst usually presents a unilateral, painless tumor which often has fluctuated in size. There may be a history of hoarseness and dysphagia. On examination one finds a benign appearing tumor varying in size and located anywhere from the mastoid process to the sternoclavicular junction but always bearing a definite relationship to the sternomastoid muscle, that is anterior to it and often in part beneath it.

Fistulas are of very small calibre and are brought to the patient's attention by a secretion of mucoid material from the orifice either external or internal (in the supra-tonsillar fossa).

We have presented here a patient E. E. (Fig. 2) who showed cervical fistulas and an aural fistula on the left. We succeeded in passing an urethral filiform through and through the fistula on the



Fig. 1. An X-ray picture of a patient with a ureteral catheter in a fistula. The markers designate the external orifice and the internal orifice in the tonsillar fossa.

second cleft is practically always at fault. We know that the pharyngeal aspect of the first groove persists to form the Eustachian canal and its corresponding external groove persists to form the external auditory meatus while the entodermal-ectodermal membrane between forms the tympanic membrane. Now the second cleft on the pharyngeal side closely resembles the first, as cross sections of a 6.5 mm. human embryo will show, and indeed might well be called the inferior horn



Fig. 2. Patient E. E. (case 58), with bilateral cervical fistulas and an aural fistula on the left. A urethral filiform is shown entering the external orifice and coming through the mouth having made its exit in the supratonsillar fossa.



Fig. 3. Patient C. E., showing a cervical fistula and a probe in the aural fistula on the right.

right and followed this by an X-ray opaque ureteral catheter after which stereo—X-rays were taken for studying the course of the fistulous tract. (Fig. 1) Three of the patient's five children presented branchial anomalies, two of whom are shown here. (Figs. 3 and 4.)

Not much is known of aural fistulas. They are usually only one-eighth to one-fourth inches deep and do not secrete.

In the differential diagnosis of branchial cysts one should consider Cystic Hygroma, Thyroglossal Duct Cyst, Venous Hemangiomas, Retropharyngeal Abscesses and Lipomas. The lesion, however, which should receive chief consideration is adenitis and in particular tuberculous adenitis. It is frequently quite difficult to make the differentiation between a tuberculous adenitis and an atheromatous branchial cyst. The demonstration of cholesterol crystals in the aspirated material of the cyst is helpful, (dermoid cysts produce this substance also).

A cross section of the cyst wall will show a stratified squamous epithelium closely resembling skin or a columnar epithelium which may or may not be ciliated. These epithelia invariably surmount a lymphoid tissue band which is usually very dense and may contain definite lymphoid follicles. This is a constant feature of this type of cyst. They do not contain hair follicles and the further differentiated skin structures as do dermoid cysts.

The treatment to be adequate must involve a complete excision of the cyst lining. This may be relatively simple for the superficial cysts and on the other hand extremely difficult for the deeper cysts as they often lie closely adjacent to the vital structures of the neck.

CONCLUSIONS

1. Branchial cleft anomalies (cysts and fistulas) result from a failure of absorption of the included ectodermal and entodermal epithelium that is buried during the growth and fusion of the branchial arches in early embryonic life. This is most probably the sole explanation, the thymic stalk playing no role. The formation of the fistula with its supernumerary auricle may be the result of an attempt at the production of an anomalous ear and canal.

2. Branchial cysts, in truth, are epidermoid cysts of the neck whose parent epithelium was buried during the development of the branchial apparatus. Their characters are more varied, of course, than those of the commoner epidermoid or inclusion cysts owing to the activity of entodermal or ectodermal epithelium or both. Many of the submaxillary cysts and so-called ranulas are of branchial origin.

3. Branchial fistulas may be familial and hereditary, and they seem to be inherited through the mother only.

4. More attention should be given to the possibility that a tumor in the neck is of branchial origin, especially in view of their frequent simulation of tuberculous glands and their occurrence

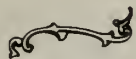


Fig. 4. Patient W. E., showing bilateral cervical fistulas and probes in bilateral aural fistulas.

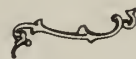
in early youth. This is enjoined even more by the fact that results from treatment are in proportion to the completeness with which the epithelial wall is excised.

5. An adequate and simple classification of the cysts would be (a) branchial cleft epidermoid cysts and (b) branchial cleft mucous cysts.

STATE HEALTH COMMISSIONER'S PAGE



D. C. Stulman, M.D.



The most prevalent diseases for the past month were measles, smallpox, scarlet fever, chickenpox, and mumps in the order named.

MEASLES

For the months of February and March the number of cases of measles reported was approximately the same, 2,435 cases, but there was a marked drop last month, 1,847 cases having been reported. The prophecy, made by the Department last fall, that Iowa was about to experience a measles season, has been fulfilled. The last "measles year" was 1927. During the first four months of that year 8,688 cases were reported. During the next year the number for the same period was 759. This year the total has been 7,846.

SMALLPOX

Smallpox continues to be reported in large numbers. 1,732 cases have been reported so far this year. This gives an average of 433 per month. During the same period in 1928, 1,100 cases were reported, and in 1929, 660, giving a monthly average of 275 and 165 respectively. These figures show an increase of 1,072 cases of smallpox for the first four months of 1930 over the number for the corresponding period of 1929.

SCARLET FEVER

Scarlet fever shows a falling off for this period of 1930 as compared with 1929. In the latter year 2,408 cases with a monthly average of 602 were reported as compared with 1,556 cases and an average of 389.

DIPHTHERIA

Thus far in 1930, 173 cases of diphtheria have been reported. This gives an average of 43 cases per month and is an increase of 48 cases and 12 average over the figures for 1929, but a decrease of 60 cases and 15 average from the figures of 1928. The number of deaths from diphtheria for 1929 was 34, the lowest in the history of Iowa. A campaign for state-wide immunization against this disease was begun in 1923 and has been continued to date. The average number of deaths per year for the period 1920 to 1924 was 242. For the years 1925 to 1928 inclu-

sive the yearly average dropped to 104. Much credit for this decrease is given to the results of the campaign, but the new "crop" of babies must be immunized if the number of deaths is to be kept at the level of 1929.

VIRULENCE TEST FOR DIPHTHERIA

A letter was received in the office of the Department which stated in part, "Your bulletin speaks of a virulence test. Will you tell me how such a test is made?" This was in connection with a patient from whom positive reports on throat cultures were being received although the patient had no clinical signs of diphtheria.

The test for virulence is a laboratory procedure. Cultures are taken from nose and throat in the usual way and submitted to the laboratory with the request that a virulence test be made. Bacilli recovered from such cultures by the laboratory are injected into guinea pigs. If the pigs show no signs of infection, a report of non-virulence is given. Upon receipt of such a report from the laboratory, the patient may be released forthwith.

LITERATURE REQUESTED

Many physicians took advantage of the opportunity offered by the State Department at its exhibit in the Coliseum at Marshalltown during the Iowa State Medical Meeting to examine the literature on public health and the prevention of disease and to sign the request blank that a supply be sent to them for their library table as well as for distribution to their patients. Many requests were received.

Copies of this literature will be sent free upon application.

EPIDEMIOLOGICAL INVESTIGATIONS

During the month of April seven field investigations were made by the epidemiologist of this department. Trips were made to sections of the state as follows:

Two to Central Iowa; two to Southern Iowa; two to Northwestern Iowa; one to East Central Iowa.

Five of these trips were occasioned by outbreaks of smallpox, one by meningitis and one by scarlet fever.

In the smallpox outbreaks cases were seen with the health officer and the diagnosis confirmed. Strict quarantine of the cases and isolation of the intimate contacts were imposed. Meetings were held with the mayor, health officer and boards of health at which recommendations were made for the control of the outbreak.

In one smallpox outbreak there was some laxity on the part of the health authorities as to quarantine of cases and isolation of contacts. The question arose also as to the duties of school officials relative to exclusion from school by them of cases and contacts. Explanation and interpretation of the rules and regulations were made which set them right.

The scarlet fever investigation was occasioned by a difference of opinion among the local physicians as to the diagnosis. One doctor failed to make a diagnosis of scarlet fever because he did not see a "strawberry tongue" although the other cardinal symptoms were present.

CONVENTION OF THE INTERNATIONAL SOCIETY FOR CRIPPLED CHILDREN

The ninth annual convention of the International Society for Crippled Children will be held at Toronto, March 17, 1931. Hon. G. Howard Ferguson, premier of Canada, and Hon. Franklin D. Roosevelt, governor of New York, are included in a long list of distinguished speakers who have accepted program assignments. The convention will be devoted to the discussion of specific problems encountered in restoring crippled children to health and happiness. Education, vocational rehabilitation, treatment and care, investigation into the causes of crippling, questions of financial and professional aid, and management of this world-wide movement will be brought before the delegates.

FOURTH ANNUAL STATE CONFERENCE ON CHILD DEVELOPMENT AND PARENT EDUCATION

The Fourth Annual State Conference on Child Development and Parent Education will be held at Iowa City, June 17, 18 and 19. This conference is under the auspices of the Iowa State Council for Child Study and Parent Education, with which cooperate Iowa State Teachers College, Iowa State College of Agriculture and Mechanic Arts, the State University of Iowa, and the Iowa Child Welfare Research Station.

In addition to a number of other noted speakers, the following physicians appear on the program: Dr. Esther L. Richards, Baltimore, Associate professor of psychiatry, Johns Hopkins University; Dr. Martha Van Rensselaer, New York, Assistant Director, White House Conference; Dr. Clarence M. Hincks, Toronto, Ontario, Canadian National Committee for Mental Hygiene.

COURSE IN OTORHINOLARYNGOLOGY

Professor Georges Portmann at the University of Bordeaux, France, has announced a special five-weeks' course in otorhinolaryngology beginning July 21. The class will be limited to twelve students; a fee of \$350 will be assessed for the entire course. Further information can be obtained from Dr. Leon Felderman, Broad and Locust Streets, Philadelphia, Pa.

UNITED STATES CIVIL SERVICE EXAMINATIONS

The United States Civil Service Commission announces the following open competitive examinations:

Physiotherapy aide.

Physiotherapy assistant.

Applications for physiotherapy aide and physiotherapy assistant must be on file with the Civil Service Commission at Washington, D. C., not later than June 24, 1930.

The examinations are to fill vacancies in the hospitals of the United States Veterans' Bureau and Public Health Service throughout the country, and in positions requiring similar qualifications.

The duties of these positions are in connection with the administering of physiotherapy in its several branches—massage, electrotherapy, actinotherapy, hydrotherapy, mechanotherapy; active, passive, resistive, and assistive exercises and remedial gymnastics; keeping daily record of the work and progress of each and every patient coming under the direction and treatment; making the required reports of the activities of the reconstruction work in physiotherapy.

Competitors will be rated on practical questions and on their education, training, and experience.

Full information may be obtained from the United States Civil Service Commission at Washington, D. C., or the Secretary of the United States Civil Service Board of Examiners at the post office or custom house in any city.

DR. HUGH CABOT GOES TO ROCHESTER

According to the Chicago Tribune, Dr. Hugh Cabot announced his appointment, March 5, as senior consultant at the Mayo Clinic, Rochester, Minn., effective June 1. Dr. Cabot has been dean of the University of Michigan Medical School since 1921, and, since 1919, professor of surgery. It is reported that Dr. Frederick A. Collier will assume the duties in the department to succeed Dr. Cabot.

MEDICAL TOWERS

A thirty-story professional building costing \$2,500,000, and known as "Medical Towers," will be erected in the very near future in Philadelphia. This building will be owned and operated by physicians and architects on the cooperative ownership plan.

The JOURNAL of the
Iowa State Medical Society
ISSUED MONTHLY

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1122 Bankers Trust Building, Des Moines

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XX June, 1930 No. 6

THE SEVENTY-NINTH ANNUAL MEETING

The annual session of the Iowa State Medical Society which convened May 14-16, inclusive, in Marshalltown, was a most useful one. The scientific program was outstanding both in the papers read by local physicians and the addresses of the distinguished guests. It was rather striking that the papers presented at this session were all of a highly practical nature, a condition which may have resulted from the plan of introducing each day's program by a medical or surgical clinic. It would appear that the clinical features introduced by our distinguished guests were uniformly appreciated, and that, in the arrangement of future programs, this feature might be repeated to advantage. In the reports of the various officers and committees of the State Society, progress was uniformly recorded. The financial condition of the society was satisfactory. Increasing interest in the problems of organized medicine was manifested by the scope of the reports made and the nature of the recommendations.

In the election of officers for the ensuing year, all vacancies resulting from expiration of tenure or resignation were filled. Dr. Channing G. Smith of Granger, was chosen as president-elect, Dr. R. S. Grossman of Marshalltown, was elected first vice-president and Dr. William R. Brock of Sheldon, was unanimously chosen second vice-president. Dr. Tom B. Throckmorton, who for the past fourteen years has faithfully served the society as secretary, and to whom the State Society owes much of its present glory and achievement, expressed his desire to be relieved from the duties of his office—a request which the society reluctantly granted. The office of secretary was awarded by unanimous vote to Dr. Robert L.

Parker of Des Moines. Dr. E. B. Winnett of Des Moines, succeeds Dr. Parker to the office of treasurer. Dr. Gordon Harkness of Davenport, and Dr. E. M. Myers of Boone, were elected trustees, filling vacancies created by the expiration of the term of office of Dr. Vernon L. Treynor and the resignation of Dr. John F. Herrick, respectively. Dr. C. A. Boice of Washington, was chosen councilor of the first district; Dr. Thomas A. Burcham of Des Moines, of the seventh district; Dr. A. V. Hennessey of Council Bluffs, of the ninth district; and Dr. William Jepson of Sioux City, of the eleventh district.

Editor's Note: A complete list of officers will be found on page xvii.

BAKER OF MUSCATINE

Considerable interest has been aroused both through the lay and professional press concerning the activities of Norman Baker, of Muscatine, Iowa, and J. R. Brinkley, of Milford, Kansas. It is alleged of both Baker and Brinkley that they are conducting institutions purporting to cure diseases which, in the one case, are considered incurable by the best authorities, and in the other, employing highly questionable procedures—procedures which are considered thoroughly devoid of benefit to the patient. In each instance, the American Medical Association, through editorial comment, has called the attention of the profession to the claims and practices of these institutions, and as a result of their activities in combating their alleged questionable practices, have been made defendants in damage suits.

In the case of Norman Baker, of Muscatine, the suit is for \$500,000 damages for alleged libelous statements. During the closing day of the recent annual meeting of the Iowa State Medical Society notices of this suit were served on both the retiring president, Dr. John H. Peck, and the incoming president, Dr. W. A. Rohlf. Details of the procedure followed in the suit instigated by Brinkley are not at hand.

An analysis of the irregularities of these two men leads one to the conclusion that two fundamental principles are involved—namely, (1) a violation of the Medical Practice Act, and (2) the broadcasting of fraudulent or extravagant claims. If Baker and his associates are practicing medicine without being duly licensed by the state, as alleged, the matter becomes one requiring action by the State Board of Health. Through the activities of H. B. Carlson, investigator for the State Department of Health, evidence was secured indicating that there had been a violation of the Medical Practice Act by Baker and his associates, and on this evidence a temporary restraining order was petitioned by the Attorney-General, John

Fletcher, through the Muscatine County District Court. It was thought by this restraint to terminate the irregular practices of the institute insofar as an infringement of our Medical Practice Act was concerned. The case received a hearing in the Court of Judge A. P. Barker on May 14th. Judge Barker ruled that, under Section 2519 of Chapter 115 of the Iowa Code, his Court did not have authority to grant a temporary injunction for violation of Chapters 115 and 116 of Title VIII of the 1927 Code. In presenting this ruling, Judge Barker made it quite clear that his findings did not touch upon the merits of the principal question in the issue—namely, the restraint of the defendant from the practice of medicine without a license, as set forth in the injunction filed by the Attorney-General, but merely outlined the Court's authority. This matter will be again reviewed in the County Court during the June session.

INJUNCTION DENIED BRINKLEY

A complaint filed by Dr. L. F. Barney, former president of the Kansas Medical Society, against Dr. John R. Brinkley, Milford, Kansas, goat gland specialist, charges unprofessional conduct and fraud.

This complaint seeks to revoke the license held by Dr. Brinkley to practice medicine and surgery in Kansas.

In District Court, May 20, Judge George M. Whitcomb denied Brinkley an injunction against the medical board by which Brinkley sought to enjoin the board of medical registration and examination from acting upon the complaint lodged by Dr. Barney. It is alleged in the complaint that Brinkley specializes in alleged rejuvenation operations, transplanting goat glands into the bodies of his patients, and also prescribes medicine over a radio station at Milford.

MEETING OF THE WOMAN'S AUXILIARY AMERICAN MEDICAL ASSOCIATION

Announcement has been made that the annual session of the Woman's Auxiliary of the American Medical Association will be held in Detroit, Michigan, June 23d to 26th, inclusive. The headquarters of the Association will be at the Hotel Tuller.

On Monday, June 23d, the first day of this meeting, there will be a meeting of the board of directors at 2:30 p. m. at the Statler Hotel, with Mrs. George H. Hoxie, president, presiding. All state presidents and presidents-elect are asked to time their arrival and stay in Detroit so as to be able to attend the pre-convention and post-convention board meetings.

The meeting proper will begin on Tuesday, June 24th, at 9 a. m., with the business meeting in the Arabian Room. Following the customary opening exercises will be a report from all officers and standing committees. At 1 p. m. a luncheon will be served in the Roof Garden of the Hotel Tuller, at which Mrs. Walter J. Freeman will serve as toastmistress. At this luncheon, Dr. M. L. Harris, president of the American Medical Association; Dr. William Gerry Morgan, Washington, D. C., president-elect; Dr. H. H. Upham, Columbus, Ohio, chairman of the Advisory Committee, and Dr. Charles Mayo, Rochester, Minnesota, will speak.

On Wednesday, June 25th, there will be a Workers' Conference at 10 a. m., and a discussion of the purposes of the Auxiliary and the National Program will be presented. This discussion is planned to be a Workers' Conference in the real sense of the word. It will be interesting and exhilarating to any doctor's wife, and should be especially valuable to the state presidents, presidents-elect, committee chairmen, or county officers. Following this discussion the Auxiliary will resume its business deliberations.

There will be a post-convention board meeting on Thursday, June 26th, in the Egyptian Room of the Hotel Tuller, at which Mrs. J. Newton Hunsberger, president-elect, will preside. At 10 a. m. there will be a Round Table for the state presidents and committee chairmen in the Arabian Room at the Hotel Tuller. At this Round Table, the purposes of the state annual meeting, preparations for the state meeting, agenda for the state meeting, duties of state board members, will be the topics for discussion.

VITAMIN CONTENT OF ARTIFICIALLY RIPENED FRUIT

In 1923, F. E. Denny¹ secured, under U. S. Patent No. 1,475,938, protection for the commercial use of ethylene gas in the artificial ripening of certain fruits and vegetables. Since its introduction, this method has become widespread in use, and is today employed for the forced coloration of all of the citrus fruits, bananas, early vegetables, and berries. This process permits the gathering of unripe fruit at a time when it is firm, and stands transportation and storage much better than the naturally ripened fruit. It further permits the rapid ripening of fruits when emergency requires.

Soon after the announcement of the ethylene process for treating fruits and vegetables, the

Trustees Meeting

Friday, May 23, 1930

Minutes

The meeting of the trustees of the Iowa State Medical Society was called to order at 1 o'clock in the State Society offices at 1122 Bankers Trust Building. Those present during the first part of the meeting were, Oliver J. Fay, Gordon F. Harkness, and Edward M. Myers. Later the following state officers attended: Robert L. Parker, secretary; E. B. Winnett, treasurer; William A. Rohlf, president; Channing G. Smith, president-elect; Thomas A. Burcham, chairman of the council; Ralph R. Simmons, editor; Frank A. Ely, chairman of medico-legal committee, and Mr. Vernon Blank, managing director.

Dr. Oliver J. Fay was elected chairman of the board. Dr. Harkness moved that Mr. Blank be re-elected for another year, and that his salary be fixed at \$6,000, plus 7 cents per mile and meals and hotel bills, while on official business. This motion was seconded by Dr. Myers and carried unanimously.

Dr. Myers moved and Dr. Harkness seconded, that Dr. Simmons be elected editor for one year and that his salary be fixed at \$1,500 per annum. Carried unanimously. Dr. Harkness moved and Dr. Myers seconded, that the treasurer's salary be fixed at \$50 per annum. Carried unanimously. Dr. Myers moved and Dr. Harkness seconded, that the salary of the secretary be fixed at \$300 per annum. Carried unanimously.

Moved by Dr. Harkness, seconded by Dr. Myers that the secretary's account be carried in the Bankers Trust Company Bank and that the treasurer's accounts be carried in the Des Moines-Iowa National Bank. Motion carried.

Moved by Dr. Harkness, seconded by Dr. Myers that regular bills, fixed salaries, rent and other items for which the Board had contracted and especially where discounts were allowed, should meet the approval of the Board when signed by the Chairman, the same to be submitted at the next regular meeting for signature of the other trustees. Motion carried.

Dr. Burcham reported for the Legislative Committee that the Council had voted to act in an advisory capacity to assist the Legislative Committee in working out a

policy in regard to the Medical Practice Act and the Basic Science Law.

Dr. Rohlf presented the notice of suit by N. Baker of Muscatine, Iowa, against the American Medical Association, which had been served upon Drs. Rohlf and Peck at the time of the annual meeting at Marshalltown, and it was decided to forward the notice to the American Medical Association for advice.

Dr. Ely stated that Attorney Dutcher had recently submitted a bill which contained two items of \$100 each for "retainer fee." After some discussion and explanation of previous experiences in handling medico-legal expense, it was agreed that it would be well for Dr. Ely to act upon his own suggestion that Attorney Dutcher be asked for itemized statements.

Mr. Blank was directed to secure an approved copy of the Constitution and By-Laws as amended to date and to get the price on 500 copies to submit at the next Board meeting for action.

Moved by Dr. Harkness, seconded by Dr. Myers, and carried that the Managing Director be made the custodian of the records of the society which are to be kept in the safe and not let out of the office. Mr. Blank was then directed to find out from Curator E. R. Harlan whether or not the record books dated from 1858 to 1900 would be acceptable to the State Historical Department.

After a discussion of office personnel, Dr. Harkness made a motion which was seconded by Dr. Myers and carried that Miss Dorothy Nelson be employed at an initial salary of \$100 per month to have special charge of the Speakers Bureau, and Mr. Blank was authorized to employ Miss Dorothy Comstock as secretary at a salary of \$100.

Dr. Fay stated to Dr. Rohlf that he was certain he expressed the opinion of the entire Board when he said that it was their purpose to support the administration in every way to the end that the society should have a unified policy and work harmoniously in carrying it out.

The meeting adjourned at 4 p. m.

Journal of the American Medical Association, recognizing a possible harmful effect on their nutritive values, particularly in reference to the vitamins, in 1927 called attention in an editorial² to the need of research regarding the effect, if any, of this chemical process of forced ripening.

Recently, D. Breese Jones, Ph.D., and E. M. Nelson, Ph.D.³, of the Bureau of Chemistry and Soils of the U. S. Department of Agriculture, have published the results of a very extensive work investigating this problem. They have used, in their investigation, a pure bred strain of garden tomato supplied by the U. S. Department of Agriculture from their experiment farm in Arlington, Va. Three classes of the vegetable were studied for their vitamin content; immature green tomatoes; mature green tomatoes; mature tomatoes naturally ripened on the vine. In the first two groups, the samples were divided into two portions, one to be treated with ethylene gas, and the other to remain untreated. Each group was in turn tested for its vitamin content, and compared with the naturally ripened vegetable. It is interesting to note that no material difference was observed in the Vitamin A content of green tomatoes picked at different stages of development, whether treated with ethylene or not. The same is true of the Vitamin B content of the different groups as determined in this test. Vitamin C, however, increased as the tomato approached the mature ripened condition. The ethylene treatment of green tomatoes produced no significant changes in their Vitamin C potency, which was low in all samples of the green vegetable treated. Following storage, all samples gave lower values in Vitamin B than appeared in the specimens freshly submitted to assay. Their results would further indicate that, in so far as the use of tomato juice as a source of vitamins is concerned, the vine-ripened tomatoes are preferable to those picked green and treated with ethylene gas to develop the characteristic color of the ripe vegetable, although no indication was observed that the ethylene treatment had in any way a harmful effect upon the vitamins already developed.

1. Denny, F. E.: *J. Agri. Res.* xxvii: 757, 1924.
2. *J. A. M. A.*: lxxxix 792, 1927; lxxxix 1875, 1927.
3. *Am. J. Pub. Health*: xx: 387, 1930.

POST GRADUATE LECTURES—PARIS UNIVERSITY

Announcement has just been made that during the fall of 1930, a series of post graduate lectures will be given in English under the auspices of the Paris University Medical School. The courses will be divided into six major divisions covering the following specialties. Diseases of the lung, with x-ray

projections and anatomical specimens, ten conferences and practical demonstrations under the direction of Professor Sergent, Hopital de la Charite, October 20 to 25, 1930. Fees: 500 francs. Diseases of the heart and vessels, ten lessons by Professor Clerc, Hopital Lariboisiere, October 20 to 30, 1930. Fees: 600 francs. Pediatrics, two series of lectures and practical demonstrations by Dr. Armand-Delille, physician to the Hopital Herold, June 2 to 17 and October 6 to 18, 1930. Fees: 500 francs each series. Clinique of Professor Gosset, surgery of the digestive tract and the liver with operative demonstrations and operations on the dog, October 13 to 20, 1930. Fees: 500 francs. Ten lessons on the surgery of the eye, by Drs. Morax, Magitot, Bolack and E. Hartmann, Amphitheatre d'Anatomie des hopitaux, October 1 to 14, 1930. Fees: 500 francs. Ten lessons on the surgery of the ear, nose and throat, by F. Lemaitre, Associate Professor, Amphitheatre d'Anatomie des hopitaux, October 13 to 28, 1930. Fees: 500 francs. For further information and detailed program of each course, write to the secretary of the Association pour le developement des Relations Medicales, 12 rue de l'Ecole-de-Medecine, Paris.

STANDARD CHEMICAL PURCHASES HOWARD-HOLT COMPANY

The Standard Chemical Company of Des Moines has purchased the Howard-Holt Company of Cedar Rapids which has been engaged in the pharmaceutical business in that city for twenty-seven years.

President Guy E. Logan of the Standard Chemical Company announced that this was the fifth concern which his organization has purchased in the quarter of a century it has been doing business in Des Moines, and that it is now "the only pharmaceutical manufacturing and distributing company in the state making a full line." An announcement of the consolidation will be found in the advertising pages of this issue of the Journal.

AMERICAN PROCTOLOGIC SOCIETY

The Thirty-First Annual Session of the American Proctologic Society will be held in Buffalo June 22, 23 and 24, with headquarters at the Statler Hotel.

Daniel F. Jones, M.D., of Boston, Associate in Surgery, Harvard Medical School, has accepted the invitation of the Society to appear as the guest speaker on Monday, June 23rd. His subject will be The Operative Treatment of Carcinoma of the Rectum. The remaining twenty-one papers will be delivered by members of the association.

Included in the entertainment plans are trips to Niagara Falls with dinner on the Canadian side, a boat trip to Crystal Beach, a boat trip to Detroit for the meeting of the American Medical Association, and theatre parties.

Officers of the Society include: Dr. Walter A. Fansler of Minneapolis, president; Dr. W. A. Hermance of Philadelphia, vice-president; and Dr. Curtice Rosser of Dallas, secretary and treasurer.

On to Detroit

81st Annual Session A. M. A.

June 23-27

*"It is generally recognized that scientific medicine has advanced more in the past twenty-five years than in the previous twenty-five centuries. The work of the sections of the Association is an adequate reflection of this tremendous progress." The fifteen scientific assemblages provide more than three hundred papers in all the special medical fields. Here the contributors make available to the general practitioner the advanced methods and therapeutics that are presented otherwise only before small organizations devoted to medical specialties. * * * * **

*"The Scientific Exhibit has grown from a few demonstrations to more than a hundred and fifty exhibits and demonstrations scheduled for the Detroit Session. Not only will group exhibits on fractures, varicose veins and biochemical methods be available, but a number of the leading pathologists of America will demonstrate with fresh tissues the changes that occur as a result of disease. For those who still wish the stimulus of clinical lectures there is provided a special series by eminent leaders in surgery, internal medicine and the various specialties. * * * * **

"Beyond all this are the unusual entertainment features, the opening assembly, the foreign guests, and this year presentation of badges to all living ex-presidents. To many physicians the most valuable feature of the annual session is the opportunity to renew old friendships and to make new contacts."

—Editorial—J. A. M. A.—May 24, 1930.

On to Detroit

SOCIETY PROCEEDINGS

Carroll, Greene and Sac Counties

Thursday, May 29, the majority of the members of Carroll, Greene and Sac counties gathered in the Commercial Club rooms in Carroll at 7:30 for a special meeting called at the request of Dr. Thomas A. Burcham, chairman of the Legislative Committee of the Iowa State Medical Society. Dr. Channing G. Smith, Granger, president-elect of the state society, and Mr. Vernon D. Blank, managing director, were present and discussed state society activities with special reference to legislative work. Voting records and other facts regarding local members of the previous legislature were reported upon in some detail, and a resolution of recommendation to the profession in the three counties was unanimously passed.

Cerro Gordo County

The Cerro Gordo County Medical Society held its regular meeting, May 20, at the Hanford Hotel. A six-thirty dinner preceded a brief business meeting, followed by a scientific program.

Oliver J. Fay, M.D., of Des Moines, Medical Counsel to the Industrial Commissioner, gave a very interesting paper on the Evaluation of Cerebral Concussion in Industries. This paper raised considerable discussion and questions from many of the attending physicians. Floyd O. Woodard, M.D., also of Des Moines, gave a very thorough description of the Anatomy of the Brain. Walter D. Abbott, M.D., of Des Moines, gave a very interesting paper on Injuries of the Brain and the findings later by the injection of air, or encephalography. These papers brought a great deal of discussion by various members of the society. Dr. W. S. Osborne of Osage was a visitor at the meeting.

Our next meeting will be on June 17, and the wives of the physicians are invited, as well as friends. This meeting will be held at the Clear Lake Country Club, and Dr. D. W. Morehouse, president of Drake University, will deliver the principal address.

T. E. Davidson, M.D., Secretary.

Delaware County

The regular meeting of the Delaware County Medical Society was held Thursday, May 22, in Manchester. After a six-thirty dinner at the Glen-Charles Hotel, J. I. Jones, M.D., and D. M. Fuiks, M.D., reported to the members of the society on the annual session of the State Society which was held in Marshalltown.

Des Moines County

Some forty members of the Des Moines County Medical Society met in Burlington, Tuesday, May 20, for their regular meeting. Following the dinner, three out of town speakers were heard on the subject of Medical Economics. Dr. George B. Crow of Bur-

lington reported on the recent state medical meeting. The guest speakers were, Dr. C. B. Taylor of Ottumwa, Dr. J. C. Donahue of Centerville, and Mr. Vernon Blank, managing director of the state society, of Des Moines.

Fayette County

Members of the Fayette County Medical Society met Monday, May 12, in Oelwein, and after a six-thirty dinner, listened to the following scientific program: Injuries and Care of the Shoulder, John A. Cahill, M.D., Volga City, and Injuries to the Knee, D. W. Ward, M.D., Oelwein.

Jackson County

Wednesday, April 30, the Jackson County Medical Society held a business meeting. At this meeting, a committee on public health activities was appointed; resolutions were adopted on the deaths of Drs. Guthrie, Fairchild, Chase, and Albert; and steps were taken to organize a woman's auxiliary to the county society, to be composed of the wives, daughters, sisters and mothers of the members.

Johnson County

The Johnson County Medical Society met in regular session at the University Hospital in Iowa City, Wednesday, May 7, and the following scientific program was presented; Case presentation of Pellagra, Case presentation of Gastric Ulcer with Evidence of Malignant Degeneration, W. D. Paul, M.D., and O. Hyndman, M.D., discussion opened by James P. Clark, M.D. Case Presentation of Nephritis with Uremic Symptoms Simulating an Intracranial Lesion, G. E. Harrison, M.D., discussion opened by Hale F. Shirley, M.D. Mercurial Poisoning, presentation of two cases post-mortem, J. R. Schenken, M.D., discussion opened by E. D. Peasley, M.D.

Lee County

The second quarterly meeting of the Lee County Medical Society was held in the Y. W. C. A. at Keokuk, Wednesday evening, May 7. Dinner was served at six o'clock to the members and guests present, and the following program began at seven-thirty: Some Important Features of Skull Fractures, with Case Reports, B. J. Dierker, M.D., Fort Madison; Paper on Intussusception, with Case Reports, Frank R. Richmond, M.D., Fort Madison; Paper on Industrial Surgery, O. T. Clark, M.D., Keokuk.

Linn County

At a meeting of the Linn County Medical Society held May 22, the following physicians were chosen as officers of the society: Dr. B. F. Wolverton, Cedar Rapids, president; Dr. H. C. Yates, Mt. Vernon, vice-

president; Dr. Florence D. Johnston, Cedar Rapids, secretary; Dr. Emma J. Neal, Cedar Rapids, treasurer. Dr. C. S. Krause, retiring president, was elected to the Board of Censors. There was no scientific program.

Lucas County

Over twenty-five physicians were registered as guests at the meeting of the Lucas County Medical Society held in Chariton, Wednesday, May 7. After the six-thirty dinner held at the Hotel Charitone, the following scientific program was presented by three medical officers from the U. S. Veterans Hospital at Knoxville: Care of the Ex-Service Men and Women by the U. S. Veteran's Bureau, M. L. Underwood, M.D.; History of Mental Diseases, demonstrated with pictures, W. W. Hedland, M.D.; Diagnosis of Various Types of Psychosis, C. M. Sheik, M.D.

Marion County

An informal called meeting of the Marion County Medical Society was held at the office of the secretary in Knoxville, Monday evening, May 12. Doctors from Pella, Pleasantville, Harvey, Bussey and Knoxville were in attendance. A luncheon and social hour at the Dutch Mill Cafe concluded the evening's festivities.

C. S. Cornell, M.D., Secretary.

Palo Alto County

The activities of the Palo Alto County Medical Society during May consisted of the regular monthly meeting and a chest clinic.

The meeting was held on May 1 at the Kermoore Hotel in Emmetsburg, where dinner was served and followed by a scientific session. Robert Powers, M.D., of Emmetsburg had charge of this meeting, and spoke on the subject of Duodenal Fistulae, illustrating his talk with case reports. The paper and discussion which followed were very interesting.

The clinic held on May 23 was up to the standard, being in charge of Drs. John H. Peck and C. B. Luginbuhl, both of Des Moines and Miss Lucy McMichael of the Iowa Tuberculosis Association. During the noon recess a luncheon was attended by all the doctors and nurses at the Kermoore Hotel. The Medical Society of Palo Alto County hereby wishes to express its appreciation to the doctors and nurses who helped in the clinic and all of us are looking forward to the clinic next year.

The next regular meeting of the Palo Alto County Medical Society will be held on June 17 and will be in charge of Dr. J. W. Woodbridge of Emmetsburg. Any of the medical men from the nearby counties will be more than welcome at this meeting.

Harold L. Brereton, M.D., Secretary.

Polk County

The regular monthly meeting of the Polk County Medical Society was held at the Fort Des Moines Hotel, Tuesday evening, May 27. Henry E. Kleinberg, M.D., read a paper entitled, Endometriosis of

the Abdominal Wall, supplemented by a very complete report of a case. Julius S. Weingart, M.D., delivered a very learned paper on the subject of Modern Advances in the Physiology of Respiration and their Application to the Explanation of Clinical Symptoms. Both authors used illustrative slides in their presentations.

Doctors John H. Peck, Daniel F. Crowley, Julius S. Weingart, Gardner A. Huntoon and James A. Downing were elected to the newly created Board of Trustees of the Des Moines Academy of Medicine and Polk County Medical Society. Doctors Walter E. Baker, Martin I. Olsen and Arthur E. Merkle were elected Councilors-at-Large. President Edward J. Harnagel read his appointments to Standing Committees—Public Health and Legislation, Professional Relations, Public Relations, Educational, and Auditing.

This was the last meeting until September since no regular meetings of the society will be held during the summer months.

Washington County

Dr. John I. Marker of Davenport was the principal speaker at the monthly meeting of the Washington County Medical Society held Tuesday evening, May 6. He dealt with the subject of Mental Diseases.

Webster County

On Tuesday evening, May 20, the last meeting for the spring session of the Webster County Medical Society was held. H. J. Shore, D.V.M., of the Fort Dodge Serum Company gave an interesting paper on Infectious Abortion Disease of Domestic Animals. Dr. Shore brought out and explained the relationship of various infected animals to undulant fever in man. There was a good discussion. Dr. Roland Stahr then gave a complete report of the proceedings of the House of Delegates at the state meeting held in Marshalltown last month.

Woodbury County

The regular meeting of the Woodbury County Medical Society was held at the Elks Club, Wednesday evening, May 28, with T. R. Gittens, M.D., furnishing the scientific paper of the evening. He spoke on The Relation of Bronchoscopy and Esophagoscopy in Diseases of the Chest, illustrating his lecture with slides of statistics and X-rays. A moving picture film, The Relation of the Absorbable Sutures to Wound Healing concluded the scientific program.

The Des Moines Academy of Medicine

The Des Moines Academy of Medicine presented Dr. and Mrs. Charles Singer, of London, England, at the final meeting of the year, May 26, 1930.

Mrs. Dorothea Waley Singer, lectured at 4 p. m. in the ball room, on "Folk Medicine," to the members, their wives, the Philosophy and Science department of the Woman's club, and the Ladies' Auxiliary of the Polk County Medical Society.

At 6:30 p. m. a buffet dinner was served in the Oak room.

Following this a short business meeting was held at which the Academy voted to become a section of the Des Moines Academy of Medicine and Polk County Medical Society.

At 8 p. m. Dr. Charles Singer lectured to the Academy on the "Scientific Change from the Medieval to Modern," to members of the Academy, who had as their guests the Polk County Medical Society, University club and the wives of the organizations.

Mrs. Singer is an executive member of the International Committee of the History of Science, member of the Council of the History Section of the Royal Society of Medicine, and a contributor to numerous learned journals.

Doctor Singer is president of the International Committee of the History of Science (Paris), head of the department of the History of Medicine, London university, president of the International Congress of the History of Science and Technology, London, 1931.

Dr. and Mrs. Singer are en route to California, where Dr. Singer will be a member of the summer faculty at the University of Southern California and Pasadena.

Raleigh R. Snyder, M. D., Secretary.

Four Counties District Medical Association

Physicians from Buena Vista, Cherokee, Ida and Plymouth counties assembled in Cherokee, Thursday, May 20, when the annual meeting of the Four Counties District Medical Association was held. After a seven o'clock dinner served at the Hotel Lewis to the sixty-five physicians present, Samuel F. Haines, M.D., of the Mayo Clinic at Rochester, who was the guest speaker, delivered an address on The Diagnosis of Exophthalmic Goitre. Other scientific papers were: Some Glimpses of Modern Science, A. H. Jastram, M.D., Remsen; and Treatment of Varicose Veins, John S. Tracy, M.D., Storm Lake. A film illustrating surgical treatment of peptic ulcer was shown by C. H. Johnson, M.D., Cherokee.

Iowa Heart Association

The annual meeting of the Iowa Heart Association was held at Marshalltown, Friday, May 16, 1930, in conjunction with the meeting of the Iowa State Medical Society. Dr. Fred Smith of Iowa City presided over the noon luncheon at which forty-five members and guests were present.

The following scientific program was presented: The Sioux City Chest Clinic, R. N. Larimer, M.D., Sioux City; County Chest Clinics, C. B. Luginbuhl, M.D., Des Moines; Tonsils and Heart Disease, D. J. Glomset, M.D., Des Moines. In addition to this the following persons spoke: Dr. W. A. Rohlf, Waverly; Dr. M. E. Barnes, Iowa City; Dr. Channing Smith, Granger; Dr. Raymond S. Grossman, Marshalltown; Dr. L. R. Woodward, Mason City; Dr. J. F. Loosbrook, Lacona, and Miss Lucy McMichael, Des Moines.

The following information about clinics is quoted from the annual report:

"We proudly report the 'biggest year' in the chest clinic work of the Iowa Tuberculosis Association and

the Iowa Heart Association, with a total of 37 chest clinics. The clinicians were speakers on the program for 41 county medical meetings. Three hundred thirty-five physicians attended the clinics. This is 48 per cent of the members of the county medical societies in the counties where clinics were held. Four hundred and five patients were examined in the lung clinic, 72 of which showed active pulmonary tuberculosis; 32 of these were recommended for sanatorium care. Three hundred thirty-two patients were in for cardiac examination; 199 were found to have definite organic heart disease.

"Chest clinics were held in the following counties: Adair, Appanoose, Blackhawk, Boone, Bremer-Chickasaw, Buchanan, Cedar, Cerro Gordo, Dallas, Emmet, Greene, Grundy, Henry, Jackson, Lee, Louisa, Lyon, Madison, O'Brien, Osceola, Page, Palo Alto, Pocahontas, Polk, Pottawattamie, Poweshiek, Shelby, Taylor, Van Buren, Wayne, Winneshiek, Woodbury, Wright."

Officers of the Iowa Heart Association are Dr. Merrill M. Myers of Des Moines, president; Dr. Daniel J. Glomset of Des Moines, vice president, and Mr. T. J. Edmonds of Des Moines, secretary. The executive committee is composed of Drs. Fred M. Smith, Iowa City; Walter L. Bierring, Des Moines; L. R. Woodward, Mason City; Ben C. Hamilton, Jr., Jefferson; R. N. Larimer, Sioux City; Benjamin F. Wolverton, Cedar Rapids, and C. B. Luginbuhl, Des Moines. Ex-officio members of the committee include Dr. D. S. Steelsmith and Dr. John H. Peck, both of Des Moines.

Iowa Medical Directors Association

Dr. Lawrence G. Sikes, medical director of the Connecticut General Life Insurance Company was the principal speaker at a recent banquet held by the members of the Iowa Medical Directors Association. Dr. Sikes discussed aviation hazards from the point of view of medical directors of life insurance companies. At the business meeting of the organization, the following officers were elected: Dr. Fred L. Wells, president, Dr. Martin Olsen, vice-president, and Dr. Ralph R. Simmons, secretary and treasurer.

Iowa Pediatric Club

The Iowa Pediatric club held its third meeting, a dinner, followed by a short business session, at Hotel Tallcorn, May 9. Dr. Fred Moore, of Des Moines, was elected President, Dr. Lee F. Hill, of Des Moines, President-Elect, and Dr. Julian D. Boyd, of Iowa City, Secretary-Treasurer.

The club was organized and held its first meeting a year ago in Des Moines during the State Medical meeting. Its second meeting occurred during the fall at Iowa City when a program was put on for the visiting pediatricians by the staff of the University Medical department.

The club is composed of men who restrict their practices entirely to pediatrics, and who have had at least two years of actual pediatric practice. The organization was formed for the purpose of increas-

ing acquaintanceship, and for the exchanging of ideas. It is planned to hold meetings at least twice a year, and at any other such time as circumstances warrant.

The following comprise the present membership: Julian D. Boyd, Iowa City; L. M. Downing, Cedar Rapids; J. E. Dyson, Des Moines; James Dunn, Davenport; Morgan J. Foster, Cedar Rapids; J. F. Gerken, Waterloo; Ben C. Hamilton, Jefferson; J. M. Hayek, Cedar Rapids; Lee F. Hill, Des Moines; Mark L. Floyd, Iowa City; Phillip C. Jeans, Iowa City; Dennis Kelley, Des Moines; R. H. McBride, Sioux City; J. C. McKitterick, Burlington; M. D. Ott, Davenport; Arnold M. Smythe, Des Moines; Roland Stahr, Fort Dodge; Jack V. Treynor, Council Bluffs; Floyd O. Woodard, Des Moines.

Iowa State Medical Alumni Association

Wednesday, May 14, the Iowa State Medical Alumni Association held its annual meeting in Marshalltown. It was officially decided that the association should sponsor a meeting or preferably a banquet each year at the American Medical Association and the Tri State Medical meetings. It was the opinion of the members present that since there had been no special activity during the past year, the present officers should be re-elected. They are as follows: Dr. Royal French, Marshalltown, president; Dr. L. M. Downing, Cedar Rapids, first vice-president; Dr. Paul Van Metre, Rockwell City, second vice-president; Dr. J. K. von Lackum, Cedar Rapids, secretary.

Iowa-Western Illinois Dermatological Association

The spring meeting of the Iowa-Western Illinois Dermatological Association was held at Iowa City, May 2. Twenty interesting dermatological cases were presented for study and discussion. After a luncheon served at the American Legion Hall, the following officers were elected: Dr. J. C. Kessler of Iowa City, president; Dr. Robert E. Jameson of Davenport, vice-president; Dr. J. W. Bailey of Des Moines, secretary; Dr. A. T. Leipold of Moline, Illinois, treasurer; Dr. J. F. Auner of Des Moines, chairman of the board of censors.

J. W. Bailey, M.D., Secretary.

Iowa X-Ray Club

Dr. Louis F. Talley of Marshalltown was host to twenty-five members of the Iowa X-ray club at a luncheon served at the Hotel Tallcorn, Thursday, May 15. At the business session of the society, Dr. J. C. Shellito of Independence was elected president and Dr. Arthur W. Erskine was elected secretary-treasurer.

Northwest Iowa Medical Society

The Northwest Iowa Medical Society which is composed of physicians in Lyon, O'Brien, Osceola and

Sioux counties, met at Sheldon, Tuesday, April 29, for the regular spring meeting. Approximately sixty physicians and guests were served at the sixtieth banquet, after which the following program was presented: Medical Education, The Practitioner and the Public in Iowa, Henry S. Houghton, M.D., Iowa City; Hypertension, William P. Finney, M.D., of the Mayo Clinic, Rochester. The session closed with several clinical cases presented by members of the society. A resolution was passed recommending Dr. Frank P. Winkler for a position on the Board of Medical Examiners.

Sioux Valley Medical Association

Wednesday, May 21, the annual meeting of the Sioux Valley Medical Association was held in Sioux Falls, South Dakota, in conjunction with the annual convention of the Sioux Falls District Medical Society and the South Dakota State Medical Association.

An interesting part of the meeting was a series of medical school reunions and luncheons held during the meeting days. Approximately forty physicians attended from Sioux City.

The present officers include: Dr. Emil C. Junger of Soldier, president; Dr. J. C. Ohlmacher of Vermilion, S. D., Dr. J. A. Dales of Sioux City and Dr. E. G. McKeown of Pipestone, Minn., vice-presidents; Dr. John Henkin of Sioux City, secretary; and Dr. W. R. Brock of Sheldon, treasurer.

United States Veterans' Medical Society

The United States Veterans' Medical Society of the Veterans' Hospital at Knoxville held its annual open meeting Wednesday, May 21, with thirty-five members of the Marion, Lucas and Mahaska county societies as guests. An unusually fine program was presented by the hospital staff:

"From 1:00 to 2:00 p. m., tour of the hospital; Address of Welcome, M. L. Underwood, M.D., Medical Officer in charge; Clinical Procedure, D. D. Campbell, M.D.; Dental Care of Psychotic Cases, H. E. Gill, D.D.S.; discussion and presentation of cases by Drs. C. R. Walton, C. L. Whitmire and E. M. Levy.

"Supper was served at the hospital after which the guests enjoyed visiting various departments of the hospital. Dr. Edward H. Clark is president and Dr. C. R. Walton is secretary-treasurer of the United States Veterans' Medical Society. The meeting was both inspirational and beneficial, and the visitors were very appreciative of the splendid program that the members of the staff of Veterans' Hospital No. 57 presented."

PERSONAL MENTION

Dr. F. A. Blanchard, formerly of McColl, South Carolina, is now located in Dexter where he has purchased the office equipment and lease of Dr. B. H. Sherman, who is now in California. Dr. Blanchard is a graduate of the Tulane University College of Medicine, and has had wide experience in hospital work.

Dr. Wallace H. Longworth of Chicago has completed arrangements for taking over the office and practice of the late Dr. G. H. Stanger in Boone, and is expected to arrive about June 15 with Mrs. Longworth. He is a graduate of the State University Medical School and has been associated in Chicago with Dr. C. W. Hopkins, chief surgeon of the Chicago and Northwestern Railway Company.

Dr. Russell L. Olson of Mason City has chosen Northwood as his first location, following two years' internship at the State University Hospitals in Iowa City.

Dr. M. U. Chesire of Marshalltown who was seriously injured in an automobile accident Saturday, May 24, is slowly recovering, according to newspaper reports.

Dr. Walter R. Fieseler, former medical supervisor of athletics at the University of Iowa has resigned from the faculty of the University College of Medicine to become associate medical director at the University of Southern California next fall.

Dr. Harry F. Thompson of Forest City, addressed the Legion post in Buffalo Center, Friday, May 2. He spoke on his recent European trip.

Dr. F. B. Leffert of Centerville narrowly escaped death recently when the car in which he was riding crashed into a train on the Burlington railroad near Centerville.

Dr. N. Boyd Anderson of Des Moines was the principal speaker at the graduation exercises for the Broadlawns School of Nursing, held Thursday, May 22, at the Broadlawns Tuberculosis Hospital.

Dr. Karl R. Huff, formerly of Lenox, has established a new sanitarium at Tulsa, Oklahoma.

Dr. J. R. Winnett of Eldora has announced that he is moving from the Eldora Hospital, where he has been associated with Dr. D. M. Nyquist for several years, into an office in the Bateson building.

Dr. Leo J. Miltner of Iowa City is sailing the last part of June for China, where he will have charge of bone surgery in the Rockefeller Institute located in Peking.

Dr. Asaph Arent of Humboldt, who suffered a fractured skull in a recent automobile accident, is now convalescing at the home of his mother in Badger.

For some weeks after the accident he was in a Fort Dodge Hospital and was in a critical condition, but newspaper reports would indicate that he is slowly recovering.

Dr. Velura E. Powell of Red Oak, recently attended a meeting of the American Association for the Study of Feeble-minded Persons held in Washington, D. C. While there, Dr. Powell also attended the International Conference of Mental Hygiene, of which President Hoover is the honorary president.

Dr. Herbert A. Hartfiel, formerly of St. Paul, has taken over the practice and office equipment of the late Dr. S. E. Herbst in Northwood. Dr. Hartfiel graduated from the University of Kentucky, spending two years in Louisville, doing interne work. He comes to Northwood from Philadelphia, where he has been attending post graduate clinics in surgery at the University of Pennsylvania.

Dr. Hans Haumeder and his son left New Hampton early in May sailing for Europe, where they will meet Mrs. Haumeder, and their two daughters, in Vienna. Mrs. Haumeder went to Vienna last September and during this University year has completed her work for a Doctor of Medicine Degree. The family plans to return to New Hampton in August.

Dr. S. T. Gray of Albia, one of the recognized tulip authorities of the state, spoke to the members of the Ottumwa Garden Club, Monday, May 12. Dr. Gray's address was illustrated with a number of flowers from his large gardens.

Dr. William A. Rohlf of Waverly was the speaker of the evening at the graduation exercises for the Mercy Hospital School of Nursing held in Waverly, Monday, May 12.

Dr. E. O. Ficke has recently been appointed as the physician member of the Davenport Board of Health, succeeding Dr. George Braunlich. Dr. Ficke will be named city physician by the board of health at its first regular meeting.

Dr. George Kessel of Cresco, and his daughter, sailed Saturday, May 10, from New York City, for a vacation trip to Germany.

Dr. P. E. Stuart of Nashua was the main speaker of the evening at a Child Health Day celebration held at the McGregor school house, Thursday, May 1.

Dr. Nelle Noble of Des Moines, past president of the Professional Women's League, has recently been appointed to the city playgrounds commission. Dr. Noble who has been active in women's civic affairs, is now the president of the League of Women Voters.

Dr. C. M. Ericsson of Gowrie has received word from the Chicago, Northwestern Railroad head-

quarters of his appointment as official surgeon of that railroad, to act in that capacity in the territory between Lake City and Jewell. Dr. Ericsson is also official surgeon for the Rock Island railroad.

Dr. and Mrs. Frederick Alden of Des Moines joined some one hundred physicians and wives in an European tour with the Inter-State Post Graduate Medical Association. They are expected home about July 10.

Dr. Max E. Witte, Superintendent of the Clarinda State Hospital, attended the recent International Conference on Mental Hygiene in Washington, D. C.

Dr. J. T. McConnaughey of Mount Pleasant, who has held a Captain's commission in the Medical Corps of the U. S. Army Organized Reserves, has recently the age of eighty-four; graduated in 1876 from the been advanced to the rank of Major in that organization.

Dr. G. A. Bemis of Garner entertained a group of Iowa University friends at a week-end fishing party at his Lake Okoboji cottage. Among his other guests were, Drs. Dean M. Lierle and Norman F. Miller.

Dr. Jacob Breid of Toledo, superintendent of the Sac and Fox agency, was the principal speaker at the noon meeting of the Waterloo Optimist Club, Tuesday, May 20.

Dr. Charles E. Glynn of Davenport was named medical director of the Guaranty Life Insurance Company at a meeting of the board of directors. Dr. Glynn will fill the vacancy caused by the death of Dr. William L. Allen.

Dr. John C. Parsons addressed the Creston high school students on The X-ray. His lecture was a part of the National Hospital Day celebration held on May 12, and more than a hundred guests visited the hospital during the day.

Dr. R. P. Carney of Davenport sailed from New York, May 15, for Europe where he will attend the European sessions of the Inter-State Post Graduate Medical Association of North America. Mrs. Carney and son Ross are sailing at a later date, and will meet Dr. Carney in Prague, Austria. The entire family expects to return some time in July.

Dr. C. H. Graening of Waverly spoke to the pupils in the fifth and sixth grades in Irving School, as a part of the Child Health Day program, Thursday, May 1.

DEATH NOTICES

Ainsworth, Sidney C., of Volga City, died April 27 at the age of fifty-three as the result of diabetes; graduated in 1899 from the Missouri College of Medicine and Science. At the time of his death he was a member of the Clayton County Medical Society.

Allen, William L., of Davenport, died May 8 at the age of seventy-two as the result of heart disease; graduated in 1881 from the State University of Iowa College of Medicine. At the time of his death he was a member of the Scott County Medical Society.

Boice, James C., of Washington, died recently at the age of eighty-four; graduated in 1876 from the College of Physicians and Surgeons at Keokuk. At the time of his death he was a life member of the Washington County and Iowa State Medical Societies.

Crawford, J. Lynn, of Cedar Rapids, died May 9 at the age of fifty-four as the result of a heart attack; graduated in 1897 from the University of Pennsylvania School of Medicine. At the time of his death he was a member of the Linn County Medical Society.

Evans, Evan Stark, of Grinnell, died May 9 at the age of fifty; graduated in 1906 from Rush Medical College. At the time of his death he was a member of the Poweshiek County Medical Society.

Greer, Bertha Allen, of Lamoni, died May 12 at the age of seventy-five as the result of injuries received in an automobile accident; graduated in 1897 from the Homeopathic Medical College of Missouri. At the time of her death she was a member of the Decatur County Medical Society.

Leith, Alexander R., of Wilton Junction, died May 3 at the age of seventy-four as the result of acute kidney trouble; graduated in 1882 from the State University of Iowa College of Medicine. At the time of his death he was a member of the Muscatine County Medical Society.

Newberry, A. D., of Burlington, died May 25 at the age of fifty-four; graduated in 1898 from the College of Physicians and Surgeons, Keokuk. At the time of his death he was a member of the Des Moines County Medical Society.

Paisley, Charles L., of Farmington, died May 13 at the age of sixty-four as the result of acute appendicitis; graduated in 1891 from the State University of Iowa College of Homeopathic Medicine. At the time of his death he was a member of the Van Buren County Medical Society.

Reed, Joseph Emery, of Hubbard, died May 2 at the age of fifty-five as the result of injuries received in an automobile accident; graduated in 1906 from the Keokuk Medical College of Physicians and Surgeons. At the time of his death he was a member of the Hardin County Medical Society.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

DR. WILLIAM JEPSON, Sioux City

DR. FRANK M. FULLER, Keokuk

DR. ARTHUR D. WOODS, State Center

DR. WALTER L. BIERRING, Des Moines

DR. NORMAN F. MILLER, Iowa City

ITEMS OF HISTORICAL INTEREST

The following items were recently abstracted in a review of the older Transactions of the State Medical Society, and medical journals published in Iowa.

A successful case of paracentesis of the pericardium. Reported by G. M. Staples,* A.M., M.D., Dubuque, the patient being a young girl nine years of age, first seen June 4, 1877. Present illness followed attack of acute rheumatism in February, 1877. Symptoms—extreme dyspnoea, pallor, rapid thready irregular pulse, apex beat of the heart imperceptible, only one valve sound heard, feeble, muffled with bellows murmur. Hands and feet oedematous. Short harassing cough, no expectoration. Diagnosis—hydro-pericardium, with possible hydrothorax.

Paracentesis on June 7, 1877, chloroform anesthesia; introduction of number two needle of Potain's modification of Dieulafoy's aspirator through sixth intercostal space, one to one and half inches to left of nipple, directed upward and to the right. Sixteen ounces of straw colored fluid withdrawn; when it became highly colored with blood, the needle was removed. The heart was several times felt to strike the point of needle and communicated a rough hard sensation. Relief was immediate and followed by satisfactory improvement. During the following winter 1878-79 had recurrent attack of acute rheumatism, but no pericardial effusion appears to have taken place. In June, 1879, had severe attack of gastro-enteritis and bronchitis; again apparently recovered but became worse in November and died December 2, 1879. Autopsy, twenty-six hours after death. Diagnosis—chronic adhesive pericarditis.

The author adds the following comment. Professor Wm. Pepper of the University of Pennsylvania reported a case of paracentesis pericardium in Amer. Jour. of Med. Sciences April, 1879, claiming it was the fourth operation of the kind in this country, and the second in which it had been

followed by success, the first being by Dr. J. C. Warren of Boston. As Pepper's patient was operated September 11, 1877 and Doctor Staples' on the previous 7th of June, he claims priority.—Proceedings Iowa State Medical Society, Des Moines, Jan. 27, 28, 29, 1880, p. 177.

Notes on thirty-four cases of diphtheria, reported by Dr. M. G. Sloan,* M.D., Dallas Center. This was a report of an epidemic of diphtheria in Charlotte and vicinity during the fall of 1878. The clinical signs were typical. One case was fatal. Four of the number were complicated by extension of the pseudo-membrane into the larynx, and it was one of these cases that ended in death. Of the thirty cases uncomplicated by extension of the membrane into the air passages, some were mild and quite a number severe. In several the membrane extended forward on the hard palate nearly to the teeth, and also into the posterior nares.

Plan of treatment: No cathartic unless decided constipation was present. Quinia sulphate with chlorate of potassium were given in ordinary doses every three or four hours, alternately with sulpho-carbolate of sodium, in doses of thirty grains or less according to age—in solution. A gargle of chlorine mixture was used when the patient was old enough. The patches of membrane were gently touched, once daily, with liquor ferri sub-sulphatis in glycerine, one part to four. For the laryngeal cases the following was added: every one to four or five hours, according to the severity of the dyspnoea, a jug containing boiling lime-water and carbolic acid, fifteen grains to a pint, was placed under the patient's face, a thick cloth thrown over head and jug, and thus the vapor of lime-water and acid inhaled for five or ten minutes each time.—Proceedings Iowa State Medical Society, Des Moines, Jan. 27-29, 1880, p. 116.

Ascites—Report of a case. Paracentesis abdomenis performed 117 times. By George F.

*G. M. Staples, M.D., Dubuque, Harvard 1855. Died 1895.

*M. G. Sloan, M.D., Rush Medical College 1873. In practice in Des Moines 1930.

Jenkins,* M.D., Keokuk, Iowa. The patient was Mrs. H., aged sixty-six years, a resident of Iowa for thirty-four years, married, and the mother of several healthy children. Typhoid fever at eleven years of age; severe and of long duration. General anasarca at age of fifteen years, thought to be due to malaria. In 1880 at fifty-eight years of age had prolonged attack of jaundice, and in 1881 abdominal ascites developed, and diagnosis of cirrhosis of liver was made by attending physician. After orthodox treatment by diuretics, diaphoretics and hydrogogue cathartics failed to bring relief. At the first paracentesis forty-three pounds of fluid were withdrawn. She was tapped every ten days for the first year, then every six weeks, removing a pailful of fluid each time. At the time of the report in 1887, the patient had been tapped 117 times, and more than 4,000 pounds of fluid removed. The patient had gained in weight from 105 to 160 lbs. and otherwise greatly improved in health.—Transactions of Iowa State Medical Society, Des Moines, May, 1888, p. 133.

The following news item appeared in the *Vis Medicatrix*, August, 1891:

"Dr. Ludwig V. Hektoen, Professor of Pathology in Rush Medical College, has been elected to the Chair of Surgery in the Medical Department of the State University, to fill the vacancy caused by the universally regretted resignation of Professor Peck."

Doctor Hektoen evidently concluded not to accept this appointment, because in the October, 1891, number of the above journal appears the following: The Regents of the State University at their September meeting elected Dr. W. D. Middleton of Davenport to the Chair of Surgery, Dr. L. W. Littig to the Chair of Practice of Medicine, and Dr. Woods Hutchinson of Des Moines to the Chair of Anatomy.

Elsewhere in this issue notice is given of the death of Dr. Woods Hutchinson, on April 26, 1930, at Brookline, Massachusetts.

Forty years ago he published in the *Vis Medicatrix* the following beautiful tribute in appreciation of Dr. Homer R. Page, the father of Dr. Addison C. Page of Des Moines:

"Dr. Homer R. Page died at his home in Des Moines, Iowa, Nov. 5, 1891, in the fiftieth year of his age. Here passed away one of the noblest, sweetest souls it has ever been our lot to meet. One whose memory will be a perpetual inspiration.

"Doctor Page was born upon his father's farm at Milan, Ohio, October 17, 1842, and his early

boyhood was spent there. Ten years later his parents moved to the then frontier, near Iowa City, in this state. Not satisfied with the limited common-school education picked up in the intervals of farmwork, he determined to have something better, and by dint of determined effort and many sacrifices he succeeded in working his way through Iowa College, Grinnell, where he graduated.

"This was during war times, and the doctor joined a company which was raised among the students and marched south, but the struggle was over before they reached the front. He then accepted the chair of Greek and Latin in Western College, where he met his future wife, Miss Hattie Frisbee, to whom he was married in 1869. The same year he entered the medical department of the State University at Iowa City, where he graduated, and settled in practice at New Sharon in 1871.

"He rapidly outgrew this narrow field, and in 1878 he removed to the Capital City, where he soon acquired a practice and reputation which placed him in the front rank of physicians in the state, and which steadily grew until death cut him down in the early prime of his professional life.

"The doctor was a valued member of the Polk County Medical Society, the Iowa State Medical Society, the American Medical Association, and the American Academy of Medicine. He was professor first of Physiology and later of Obstetrics for five years in the Iowa College of Physicians and Surgeons, Des Moines, and the faculty and students mourn the loss of one of their ablest and most progressive instructors.

"Though a man of peculiarly modest and unassuming disposition he had not only attained an unusual degree of skill and success in his profession, but was of broad and liberal culture and a classic scholar of no mean order. High as were his professional attainments, it was the pure, true, lovable character of the man that most impressed all who knew him. His patients feel that they have lost a warm, true friend, a member of their own family almost, while he was not only honored but personally beloved by all his fellow-practitioners. To no one could the title, 'The Beloved Physician' be more truthfully and universally applied.

"Noble, faithful, devoted, generous to a fault, his memory will live eternally graven upon the most enduring of tablets, the human heart."

*George F. Jenkins, M.D., Prof. of Medicine, Keokuk Med. College, died 1914.

OBITUARIES

WILLIAM LARNED ALLEN, M.D., F.A.C.S.

Dr. William L. Allen, a past president of the Iowa State Medical Society, died of chronic heart disease at his home in Davenport, Iowa, on May 8, 1930, at the age of seventy-two years. He was a native son of Davenport and practiced his profession there for nearly fifty years. Among his forebearers were Governor Bradford of Massachusetts, and the Reverend Thomas Allen, his great grandfather, known as the "fighting parson" because of his participation in the battle of Bennington in 1777.

After his graduation from the Medical Department of the State University in 1881, he spent two years in post-graduate studies in Vienna. This was the so-called "Glanz-period" in Vienna. It was the period of Nothnagel the internist, Rokitsansky the pathologist, and Billroth then the leading surgical teacher and developing his epoch making operations on the stomach and intestines. Upon his return to Davenport he devoted himself to the practice of his profession with special attention to surgery and gynecology. One of his distinct contributions was the article published in the Journal of the A.M.A. Feb. 1, 1896 on "A Case of Gastrotomy for Removal of a Hairball from the Stomach." The patient was a girl 16 years of age, who had been eating hair since three years of age. The hair-ball completely filled the stomach and its entire length including the duodenal part was seventeen inches. The largest circumference was $8\frac{1}{2}$ inches, and it weighed one pound and seven and a half ounces. A complete bibliography was included with the article, comprising thirty-seven cases previously recorded. The patient recovered. This was one of the largest hair-ball tumors on record, and for several years was one of the prize specimens in the pathological museum at Iowa City, until it went up in flame with other choice possessions in the disastrous medical building fire of March 10, 1901.

Doctor Allen was the founder of St. Luke's Hospital in Davenport in 1895, the first president of its medical

board, and an earnest supporter throughout his career in developing its present high standard.

He also took an active interest in medical societies, having served as President of the Scott County Medical and Iowa-Illinois District Medical Societies. In 1920 he was honored with the presidency of the State Society, and his gracious manner as presiding officer and toastmaster at the annual banquet will be remembered by all those who were present. He represented the State Society on several occasions as a member of the House of Delegates in the American Medical Association.

While he attained a high place in his chosen field of surgery, he will be best remembered as the finest example of the cultured family doctor, a type that,

sad to relate, is rapidly disappearing. A whimsical kindness humanized his every contact. Of fine presence, a gentleman born, he graced the profession and served well his community and our state.

W.L.B.



WILLIAM LARNED ALLEN, M.D., F.A.C.S.

D. J. BROOKINGS, M.D.

In the death of Dr. D. J. Brookings at Woodward, Iowa, on April 2, 1930 in his 89th year, there passed one of the few remaining links with early medical practice in Iowa.

After his service in the Civil War in the Army of the Potomac under General Philip H. Sheridan, he entered Rush Medical College in Chicago graduating in 1869. After practicing for a year at Evanston, Illinois, he located at Xenia, a small town

northwest of Des Moines, March 27, 1871, where he remained until 1881 when the Milwaukee railroad went past Xenia and built a depot on a rising slope of ground one mile west. This town was first named Colton and later changed to Woodward. He retired from practice a few years ago on account of the effect of a cerebral hemorrhage, but kept up his interest in medical progress by frequent attendance at local medical meetings.

Coming to this land of the unbroken prairie 59 years ago what a story he could unfold of the trials, sacrifices and devotion to human service of the medical pioneers of Iowa.

W.L.B.

J. LYNN CRAWFORD, M.D., F.A.C.S. (CAL)

In the May Journal we recorded the death of Dr. George E. Crawford a past president of the State Medical Society, and now it becomes the sad duty to give similar notice of the death of his son, Dr. J. Lynn Crawford, which occurred at Cedar Rapids on May 8, 1930 at the age of fifty-six years. For the father it was sunset time, but for the son it was mid-day in a life of great usefulness and human service.

The name of Crawford holds a prominent place in Iowa Medicine. A brother Jennings Crawford will maintain the family traditions in Cedar Rapids. An uncle, the late Dr. J. P. Crawford of Davenport, was one of the leading surgeons of his period, and a cousin Dr. Jennings Crawford Litzenberg is the distinguished teacher of obstetrics in the University of Minnesota Medical School.

Dr. J. Lynn Crawford received his A.B. degree at the University of Iowa in 1894 and graduated in medicine at the University of Pennsylvania in 1897. After his graduation he served for two years as first assistant to Dr. Charles P. Noble at the Kensington Hospital for Women in Philadelphia. During the same period he was a Fellow at the Pepper Laboratory of Clinical Medicine. From 1899 to 1901 he was a graduate student in pathology and surgery at the University of Vienna. When he entered upon the practice of surgery in Cedar Rapids in 1901 he had a background of general education and special training in surgical pathology quite unusual for that time.

He was one of the organizers in 1907 of the Iowa Clinical Surgical Society, a past president of the Lynn County Medical Society, a member of the Iowa State Medical Society, and a Fellow of the American College of Surgeons.

Aside from leadership in his chosen specialty of surgery, Doctor Crawford was known for his interest in the cultural aspects of life. While a student at the University of Iowa he took an active part in dramatic work. He was a gifted musician and became a proficient flutist, having been a pupil of Adolph Mader. Later he became equally proficient on the cello. In 1906 he helped to organize the Haydn string quartet of Cedar Rapids, remaining an active participant until his last illness. He had gathered what is regarded as the best library of Chamber music in the state.

Doctor Crawford was of towering physical stature, and a most attractive personality. His artistic temperament, a rich sense of subtle humor, and a gentle kindly disposition, naturally made him beloved by a host of friends in and outside the profession. W.L.B.

EVAN STARK EVANS, M.D. (CAT)

A Happy Warrior passed from among us with the death of Dr. Evan S. Evans of Grinnell, Iowa, May 9, 1930, at the young age of forty-nine years.

His death occurred at the University Hospital at Iowa City where he had gone for medical and surgical treatment of a chronic duodenal ulcer.

He was the son of Justice and Mrs. W. D. Evans of Hampton, his father being a member of the Iowa Supreme Court at the present time. Doctor Evans

graduated from Grinnell College in 1902, his college course having been interrupted in order to enlist in Company K of Grinnell for services in the Spanish American War. He graduated with honors from Rush Medical College in 1906. After serving an internship in Cook County Hospital, he began the practice of medicine in Brooklyn, Iowa, being associated with Dr. C. D. Busby until 1909 when he moved to Grinnell. In 1916 he saw service as a Lieutenant with General Pershing's expeditionary forces in Mexico, and with the entrance of the United States into the World's War was transferred to the Base Hospital at San Antonio, Texas. Later he saw service overseas with a mobile hospital unit, and during demobilization in 1919 was assistant to the Surgeon of the Port at Hoboken, New Jersey. He was promoted to a Captaincy in 1918, and last year received his commission as Major in the Medical Reserve Corps.

His practice was confined to internal medicine and diagnosis. At the recent meeting of the Iowa Society of Clinical Medicine he was elected its president. He took a prominent part in the campaign for the study and prevention of tuberculosis inaugurated by the Iowa Tuberculosis Association.

He was intensely interested in organized medicine and his discussions before county and state medical meetings indicated his sound scientific training, with always a touch of droll humor that made his arguments most effective.

Doctor Evans was beloved by his friends and colleagues, and the esteem of the community is indicated by the suspension of all business during the hour of the funeral service. His presence and counsel will be greatly missed from all medical gatherings. W.L.B.

VERNE C. GRABER, M.D.

A life of great promise in scientific medicine was cut short by the untimely death of Dr. Verne C. Graber at the University Hospital April 13, 1930 at the age of thirty-seven years.

Doctor Graber belonged to a family of Iowa physicians, being the son of Dr. J. F. Graber of Stockport, and a brother of Dr. Harold Graber of Lockridge, Iowa. He received his B.A. degree from the University of Iowa in 1917, and M.D. in 1920. From 1924 to 1927 he served the College of Medicine as Assistant Professor of Medicine, resigning in 1927 to become associated with the Lexington (Kentucky) Clinic in charge of cardiology.

During the years that he was a teacher at the University he took an active part in furthering the interests of the Iowa Heart Association, and conducted frequent clinics in the eastern part of the state.

He belonged to that carefully trained group of the younger members of our profession, and his death is a distinct loss—particularly in the field of internal medicine. W.L.B.

WOODS HUTCHINSON, A.M., M.D.

On April 26, 1930, in Brookline, Mass., occurred

the death, from cerebral hemorrhage, of Dr. Woods Hutchinson, internationally known writer on medical subjects, and one of the most interesting characters ever associated with the Iowa profession.

Doctor Hutchinson, who died at the age of 68 years, was born in Selby, Yorkshire, England, of distinguished lineage, being a nephew of Dr. Jonothan Hutchinson the noted ophthalmic surgeon and dermatologist of London. He came with his parents at an early age to Oskaloosa, Iowa, and received his academic and professional education in this country, graduating from Penn College with the degrees of A.B. and A.M., and M.D. from the University of Michigan. Soon after graduating in medicine in 1884 he located in Des Moines, remaining until 1896, although part of this time he resided in Iowa City. He was married to Cornelia M. Williams of Des Moines in 1893. After coming to Des Moines he was listed on the Faculty of the Iowa College of Physicians and Surgeons (medical department of Drake University) as Professor of Hygiene. For the brief period of a year 1891-2 he edited the *Vis Medicatrix*, a bi-monthly publication that will always hold a high place in Iowa medical journalism.

At the meeting of the Iowa State Medical Society in Waterloo, April 15-17, 1891, he presented a paper on Eczema, which attracted considerable attention. His conception of eczema was like that held today—a dermatitis varying in its nature according to the character of the irritant. It was his interesting style of delivery, fine diction and advanced thought, that made the distinct impression. The President of the State Society in 1891 was Dr. W. D. Middleton of the Medical Faculty at Iowa City. During the following summer a vacancy occurred rather suddenly in the Chair of Anatomy, and it was reliably stated that Doctor Middleton suggested the election of Dr. Woods Hutchinson for the professorship because of the fine impression made at the Waterloo meeting with the paper on Eczema.

He introduced the game of golf to Iowa City, and older residents in the early nineties no doubt remember Doctor Hutchinson and Professor E. E. Hale, Jr., of the English department, walking tandem along Clinton Street toward the new golf course up the river, carrying the golf clubs then quite new to the community, with two English setters usually trailing on behind.

He remained with the University Medical School until 1896, when he resigned to accept the professorship of comparative pathology in the University of Buffalo. In 1899 in order to pursue special studies at the British Museum, he accepted a lectureship on biology at the University of London, as well as lecturer on comparative pathology at London Medical Graduate College.

After returning to this country he located in Portland, Oregon, serving as State Health officer of Oregon from 1903 to 1905. Later he moved to New York City to become Clinical Professor of Medicine

at the New York Polyclinic from 1907 to 1910. He then took up his residence at Brookline, a suburb of Boston, and devoted himself to writing magazine articles and lecturing on popular medical subjects. He wrote frequently for the *Saturday Evening Post*, and made numerous journeys to different parts of the world to obtain material for his writings. He was the author of "Studies in Human and Comparative Pathology", "Handbook of Health", "The Child's Day", "Common Diseases", "Instinct and Health", "Preventable Diseases", "Civilization and Health", "Conquest of Consumption", "The Doctor in War", and many other books.

As a medical speaker he had few equals; able apparently to speak on any subject, tinctured often with a withering sarcasm that penetrated far beneath the cuticle, he added greatly to the interest of every discussion in which he took part.

Withal he was a delightful personality, a fine raconteur, and an outstanding figure in American medicine.

W. L. B.

ALEXANDER R. LEITH, M.D.

With the death of Dr. A. R. Leith of Wilton, Iowa, on May 3, 1930 at the age of 73 years, there passed from the stage the type of pioneer physician that will not be replaced in American Medicine. A practitioner of nearly half a century, he represented the old family doctor of the smaller community, yet his practice extended over four counties in the days that antedated automobiles and paved roads. While recognized as a man of means, there was no drive too fatiguing when the call came. His rugged nature and gruff hearty manner, cloaked a fine spirit of understanding, sympathy and a rare tenderness at all times.

It was one of life's privileges to have known Doctor Leith.

A worthy son, Dr. G. G. Leith succeeds him, and a grandson Alexander II now a student at the University of Iowa, will continue the family medical traditions.

W.L.B.

NOBEL PRIZE WINNERS

The Nobel Prize award in Medicine this year goes jointly to Prof. Sir Frederick Gowland Hopkins, of Cambridge, England, and Prof. Christian Eijkman, of Utrecht, Holland, for their discoveries and demonstrations in connection with the vitamins.

Though the work of these two men, both of whom have made other significant contributions to medical science, was done at almost opposite poles of the earth, it was carried on simultaneously, each being ignorant of the studies the other was pursuing.

The vitamins are now so firmly established in the world's thought that it is difficult to remember what a struggle these investigators had in overthrowing the nutritional theories of Liebig and Voit, which dominated the medical world for years.

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

CERTIFIED MILK CONFERENCES—Held in 1929 by American Association of Medical Milk Commissions, etc.—American Association of Medical Milk Commissions, 360 Park Place, Brooklyn, New York.

INFANT NUTRITION—By Williams McKim Marriott, B.S., M.D.—Illustrated—Price, \$5.50—C. V. Mosby Company, St. Louis.

RADIUM IN GENERAL PRACTICE—By A. James Larkin, B. Sc., M.D., D. N. B.—Illustrated—Paul B. Hoeber, Inc., New York. Price, \$6.00.

TRAUMA, DISEASE, COMPENSATION—By A. J. Fraser, M. D.—Price, \$6.50, Net—Philadelphia, F. A. Davis Company Publishers, 1930.

NORMAL FACTS IN DIAGNOSIS—By M. Coleman Harris, M. D. and Benjamin Finesilver, M. D.—Price, \$2.50, Net—Philadelphia, F. A. Davis Company Publishers, 1930.

MINOR SURGERY—By Arthur E. Hertzler, M.D.—Second Edition, with 475 illustrations—Price, \$10.00—C. V. Mosby Company, St. Louis.

OBSTETRICS FOR NURSES—By Charles B. Reed, M.D., F.A.C.S., and Charlotte L. Gregory, R.N., B.S., M.D.—Price, \$3.00—C. V. Mosby Company, St. Louis.

RESEARCH AND MEDICAL PROGRESS AND OTHER ADDRESSES—By J. Shelton Horsley, M.D.—The C. V. Mosby Co., St. Louis, 1929—Price, \$2.00.

MODERN OTOTOLOGY—By Joseph Clarence Keeler, M. D., F. A. C. S.—Price, \$10.00, Net—Philadelphia, F. A. Davis Company Publishers, 1930.

CLINICAL FEATURES OF HEART DISEASE—By Leroy Crummer, M.D.—Second Edition, revised and enlarged—Price, \$4.00—Paul B. Hoeber Company, New York City.

THE SURGICAL CLINICS OF NORTH AMERICA—Volume 10. No. 2. (Chicago Number—April, 1930).—Per clinic year—Paper, \$12.00; Cloth, \$16—Philadelphia and London, W. B. Saunders Company.

PHYSIOLOGY AND BIOCHEMISTRY IN MODERN MEDICINE—By J. J. R. MacLeod, M.D., LL.D., D.Sc., F.R.S., assisted by Roy G. Pearce, A. C. Redfield, N. B. Taylor, and J. M. D. Olmstead, and by others—Sixth Edition with 295 illustrations, including 9 plates in colors—Price, \$11.00—C. V. Mosby Company, St. Louis.

THE MIND AT MISCHIEF—By William S. Sadler, M.D., F.A.C.S.—Price, \$4.00—Funk & Wagnalls Company, New York, 1929.

BOOK REVIEWS

GENERAL THERAPEUTICS

(The Practical Medicine Series)—By Bernard Fantus, M.S., M.D., Associate Clinical Professor of Medicine, Rush Medical College of the University of Chicago, etc.—Series 1929—Chicago, The Year Book Publishers, 304 South Dearborn Street.

This volume, edited by Bernard Fantus, M.D., summarizes the advancement made in therapeutic technique during the past year. The volume is subdivided into sections dealing with general therapeutic technique, antipathogens, tissue alterants, functional modifiers, toxicology, and physical agents. It is obvious that it would be impossible to present a book full of entirely new things in therapeutics, and for this reason, the editor of this volume attempts not only to present the new, but to review some of the less commonly known therapeutic procedures. The subject of irradiated ergosterol, or "viosterol," which is probably the most outstanding therapeutic contribution of the period, is fully discussed. The newer therapeutics of amebic dysentery, the use of salyrgan as a diuretic, advances in the treatment of snake-bite and of accidental electrocution, the use of colloidal lead in the treatment of malignant diseases, the use of tribromethylalcohol as a rectal anesthetic, the injection treatment of varicose veins, and internal hemorrhoids, the development of the bacteriophage in the treatment of certain bacterial infections, and the development of "lysozyme" in establishing immunity and "antivirus" in the therapy of bacterial infections are all thoroughly reviewed.

The volume is well-indexed and adequately illustrated.

MERCK'S INDEX

(Fourth Edition)—An Encyclopedia for the Chemist, Pharmacist and Physician, Giving the Chemicals and Drugs used in Chemistry, Medicine and the Arts. Merck & Co., Inc., Rahway, N. J. Rahway and Philadelphia.

This valuable volume has not undergone a revision before for twenty years, the last American Series appearing in 1907. In spite of this fact, however, Merck's Index has been used as a standard encyclopedia of drugs even up to the present time. The medical profession and allied sciences will welcome this new fourth edition which brings our information relative to chemicals and drugs entirely up-to-date.

While published by Merck & Co., the volume covers practically all chemicals used in chemistry, medicine, and the arts, whether manufactured by Merck or not. The alphabetical arrangement used throughout makes reference easy. In an appendix will be found tables of atomic weights, the reactions of alkaloids and glucosides, characteristic reactions of acids, bases, metals, and salts, thermometric equivalents, specific gravity tables, and percentage solution tables for both apothecary and metric systems. This volume will be invaluable to the physician, the pharmacist, the chemist, or the student fitting himself for work in any of these branches.

The volume is obtainable by physicians or medical

students directly from the publishers at one-half the list price.

THE TREATMENT OF SKIN DISEASES

(In Detail) — By Noxon Toomey, M.D. B.A., F.A.C.P., Late Instructor in Dermatology, St. Louis University; Dermatologist to the Terminal Railroad, etc.—The Lister Medical Press, St. Louis, U. S. A., 1930.

This volume, the third of a series devoted to diseases of the skin, presents the therapeutic measures which have proven efficacious in the author's hands during the past fifteen years in private and dispensary practice. The classification of cutaneous diseases is not an unusual one, since it is based upon anatomical changes or etiological agents. Sufficient descriptive discussion is included to explain the reasonableness of the treatment suggested. The numerous prescriptions included in the text are presented in both the metric and apothecary equivalents. Many of the rarer forms of skin diseases are presented and discussed with sufficient detail to make their recognition and management easier in the hands of the physician not definitely specializing in dermatology.

An adequate index is provided for quick reference.

CANCER OF THE BREAST

By William Crawford White, M.D., F. A. C. S.; Junior Surgeon to the Roosevelt Hospital; Consulting Surgeon to the New York Nursery and Child's Hospital; Fellow, N. Y. Surgical Society. Price, \$3.00. Harper & Brothers, Publishers, New York and London, 1930. Harpers Medical Monographs.

This most recent of the technical monographs included in this series has been prepared by an author whose experience as surgeon and pathologist in the Roosevelt Hospital, New York, unquestionably fit him for this compilation. The volume treats adequately the subjects of etiology, symptomatology, and diagnosis of cancer of the breast, but devotes the larger part to treatment. Operative technique is presented in sufficient detail to enable the experienced surgeon to readily understand the methods suggested. Treatment of breast cancer is discussed from the newer angle of X-ray and radium therapy. A short section on pathological technique has been included, since the diagnosis of breast tumors can frequently only be made by a well trained pathologist.

There have now appeared some seven volumes in this series of monographs, volumes which epitomize the newest information and express the most advanced ideas relative to the subject discussed. This volume maintains the high standard set by the previous numbers in this series.

ULTRA-VIOLET RAYS IN THE TREATMENT AND CURE OF DISEASE

By Percy Hall, M.R.C.S. (Eng.), L.R.C.P. (Lond.), Hon. Actino-Therapist, The Mount Vernon Hospital, London, and Northwood,

etc.—With Introductions by Sir Henry Gauvain, M.A., M.D., M.C. (Camb.), F.R.C.S., Medical Superintendent, Lord Mayor Treloar Cripples' Hospitals, and Leonard E. Hill, M.B. (Lond.), F.R.S., Director, Department of Applied Physiology and Hygiene, National Institute of Medical Research, London—Fourth Edition—St. Louis, The C. V. Mosby Company, 1930.

During the past decade, and particularly during the past two or three years, attention, both lay and professional, has been centered on the use of ultra-violet rays in the prophylaxis and treatment of disease. This volume has been prepared by a competent authority as a guide for physicians and physiotherapists in the proper understanding of this therapeutic agent. The author has appreciated that this ray, improperly used, may cause very serious trouble, and cautions against the promiscuous use of the ultra-violet lamp. The bulk of this volume is made up of a discussion of the physics of light therapy together with a full discussion of the physiology and pathology of light. Several chapters are devoted to a discussion of various types of apparatus. Typical case histories are recited, and a discussion of the most suitable type of apparatus for their treatment furnished. The volume is adequately illustrated.

A TEXT-BOOK ON ORTHOPEDIC SURGERY

By Willis C. Campbell, M.D., F.A.C.S., Professor of Orthopedic Surgery, University of Tennessee, College of Medicine, Memphis, —Octavo volume of 705 pages, with 507 Illustrations, — Cloth, \$8.50 — Philadelphia and London, W. B. Saunders Company, 1930.

To cover in one volume the subject at hand and make usable by students, practitioners and orthopedists is an art not often accomplished. The field is covered in a logical and concise manner in this text-book. The first chapter on orthopedic examination, giving normal and abnormal conditions, is the basis for the succeeding chapters. Only the better methods of treatment from a practical point are considered. Its simplicity makes it usable and valuable.

N.B.A.

THE ENDOCRINES AND CRIME

An observation of considerable interest and value to sociologists and physicians has recently been completed by Dr. Ralph Arthur Reynolds at the San Quentin Prison in California. He states that every murderer, potential and actual, now incarcerated in this prison, exhibits an oversecretion of the thyroid gland. His observations lead him to believe further that every forger exhibits an undersecretion of the pituitary gland, while every social misfit displays malsecretion of some gland of internal secretion. Dr. Reynolds has had the opportunity of treating some sixty of these cases with surprisingly good results. It is his belief that abnormal secretion of the endocrine system may be of fundamental importance in a study of crime.

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publishers in always making your own State Journal the medical authority for reliable advertising. If you have not done so begin now.

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THE JOHN PHILLIPS MEMORIAL PRIZE

The American College of Physicians announces the John Phillips Memorial Prize of \$1,500, to be awarded for the most meritorious contribution in Internal Medicine and sciences contributing thereto, under the following conditions:

(1) The contribution must be submitted in the form of a thesis or dissertation based upon published or unpublished original work.

(2) It must be mailed to the Executive Secretary of the American College of Physicians on or before August 31, 1930.

(3) The thesis or dissertation must be in the English language, in triplicate, in typewritten or printed form, and the work upon which it is based must have been done in whole or in part in the United States or Canada.

(4) The recipient of the prize would be expected to read the essay at the next Annual Meeting of the College, after which he would be officially presented with the prize by the President.

(5) The College reserves the right to make no award of the prize if a sufficiently meritorious piece of work has not been received.

(6) The announcement of the prize winner will be made not later than two months before the Annual Meeting.

THE LESLIE DANA MEDAL

The Leslie Dana Gold Medal, awarded annually in recognition of the "most outstanding work in behalf of prevention of blindness," was formally presented to Dr. George E. de Schweinitz, of Philadelphia, on May 25. The presentation address was made for the St. Louis Society for the Blind, through which the medal is awarded, by Dr. B. Franklin Royer, of New York City, Medical Director of the National Society for the Prevention of Blindness.

Dr. de Schweinitz, a former president of the American Medical Association, has devoted many years to active practice as an ophthalmologist and to teaching ophthalmology. In 1927 he received the Howe prize medal in ophthalmology.

UNAUTHORIZED SOLICITATION FOR ABBOTT LABORATORIES

Word has been broadcast by the Abbott Laboratories that a young woman operating under four aliases, or possibly as many different women, are traveling through Iowa and Illinois purporting to be representatives of the Abbott Laboratories. They have incurred hotel bills in both Des Moines and Ottumwa which were retired with fraudulent checks. The last information relative to the activities of this party, or these parties, came from Elgin, Illinois. The Abbott Laboratories will be glad to receive information and assistance in stopping the activities of such a representative or representatives.

IOWA STATE MEDICAL SOCIETY OFFICERS AND COMMITTEES 1930-1931

President.....	William A. Rohlf, Waverly
President-elect.....	Channing G. Smith, Granger
First Vice-President.....	Raymond S. Grossman, Marshalltown
Second Vice-President.....	W. R. Brock, Sheldon
Secretary.....	Robert L. Parker, Des Moines
Treasurer.....	E. B. Winnett, Des Moines

COUNCILORS

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THE NEGLECTED NEUROPATH*

LEE R. WOODWARD, M.D., Mason City

So many articles are appearing in the lay press on the mounting cost of medical care, with rather severe criticism of the medical profession, and one hears constantly so much complaint from the laity on the high cost of sickness that the time has come when we must ask ourselves frankly, "Is There Something Wrong With the Medical Profession?" If the medical profession were receiving all this money that the laity is spending to regain their health, we would still have to face this criticism, but it is estimated by competent men that forty per cent of the money spent by sick folks to regain their health goes into the hands of the irregulars. It is this large proportion of money that the medical profession is losing with which this paper is concerned.

Organized medicine, along with farmers and other business, look to legislation to cure their troubles but I am reminded of one of the trite remarks of Theodore Roosevelt—"You cannot create prosperity by law. Sustained thrift, industry, application and intelligence are the only things that ever do or ever will create prosperity, but you may very easily destroy prosperity by law", so while I would not relax our vigilance in obtaining legislation to curb the irregulars, I am firmly convinced there are certain weaknesses in the medical profession itself which need rectifying.

Progress in all lines of scientific endeavor has been extremely rapid in the past one hundred years and medical science has not lagged behind. We have passed from the old idea of a specific remedy for certain symptoms without any regard for the underlying pathology. By scientific study of disease, there have been many marvelous successes: the conquest of Yellow Fever, Typhoid Fever, Diphtheria, to say nothing of the marvelous accomplishments of Aseptic Surgery. This

progress of scientific medicine has led to one signal failure.

We have come to look upon the diseased process as of more importance than the patient himself, and we have come to treating disease instead of treating the patient. A patient is more than the diseased process with which he is afflicted. Peabody has very well said that "One of the essential qualities of the clinician is interest in humanity, for the secret in caring for the patient is in caring for the patient and success depends upon the establishment of that intimate personal contact between physician and patient which forms the basis of private practice," so instead of merely caring for disease, we must remember that we are taking care of sick folks.

A man sixty years of age went to a very reputable clinic and received a very thorough examination, and when he left the clinic he was merely told that he had a bad heart and that he would have to stop work. He was sent home to sit down and look at the black wall of death ahead. Is it any wonder that he went to another physician an extremely depressed person? It took two hours of very careful analysis to explain the whole situation to him, but then he went out knowing exactly the condition he faced, and he will live out the rest of his days perfectly happy rather than living in a constant fear of death. This clinic had taken beautiful care of an arteriosclerotic heart but had absolutely neglected to do anything for the man who had this heart.

Another instance: A young man in his sophomore year at the university was sent home with tuberculosis. There was not any question of the diagnosis—he had tuberculosis, but he was a young man full of ambition, all he could see ahead was a few years of invalidism and then death. Again it took hours, extending over a period of weeks, to get this young man to see that in spite of his disability he still could carry on and achieve his ambitions. Here again the diseased process was adequately taken care of but the patient was totally neglected, so I am wondering if there is not something wrong with the medical profession.

*Address of Chairman, Section on Medicine. Presented before the Seventy-Ninth Annual Session Iowa State Medical Society, Marshalltown, Iowa, May 14, 15, 16, 1930.

Have we not lost some of that intimate personal contact that forms the basis of private practice.

While we have been neglecting the patient, the irregular practitioners have been filling that need. This alone can be the basis of the success of Christian Science, Osteopathy, Chiropractic, and the other irregulars. Chiropractic, without question, is on the wane. They have seen their best days but if we leave the field unoccupied, some other cults will come forward so it is just a question what the next is going to be. We may be able to head it off by legislation, but I believe a much more effective way is having a fundamental interest in humanity and taking care of sick folks rather than disease.

While we have been neglectful of patients with organic pathology, we have entirely overlooked patients with emotional disturbances, leaving them entirely in the hands of the irregular practitioners and psychological healers. It seems odd that clinicians should have left the study of this to the hands of a pure scientist, Professor Cannon, professor of Physiology at Harvard University, and while his work is not yet finished, he has gone far enough that his results are summed up in his own sentence: "An escape from the insistent demands of the pathologists from morphological evidence of disease and also from the vagueness and mysticism of psychological healers can be found I am convinced in an understanding of the disturbed physiological processes that accompany profound emotional experience." It seems odd that emotional disturbances of physiological functions should so long have passed unnoticed by medical science, for treatment of patients without taking them into consideration is just as unscientific as the old idea of specific remedy for certain symptoms without taking any account of underlying pathology. Now that notice is being focused on disturbed functions, one of the earliest x-ray observations is recalled. In 1896 it was noticed that the orderly peristalsis of the stomach and segmentation of the small bowel stopped if the patient became afraid of the examination.

Now we know that the emotion of fear sets up a whole train of altered physiological processes which may be summed up as preparing the organism for a maximum effort and protection against injury. There is complete inhibition of the digestive system, the digestive glands stop secreting their juices and the movement of the alimentary canal stops. There is stimulation of the cardiovascular system, manifested by an increase in the pulse rate and a raising in the blood pressure. There is discharge of adrenalin into the blood stream and an increase in the blood sugar. The spleen constricts and there is an increase in the

number of red blood cells in the circulation, and an increase in the coagulability of the blood. When the thing which causes the emotion of fear is soon over, these altered functions of the body are quickly restored to normal and no harm is done in the usual case. However, many cases of hyperthyroidism can be traced to a single, sudden, severe emotional shock. Many external evidences are due, however, to emotional disturbances. Some people have nausea, and vomiting due to the disturbance of the stomach, by emotional distress. We see many people who under the same circumstances have a diarrhea due to a disturbance of the colon. The dry mouth of the speaker is due entirely to emotional disturbance. The polyuria and frequency of micturition of men on teams before athletic contests is well known. Lactation can be stopped under sudden, severe emotional shock. When this emotion of fear is long continued and comes to have an element which we call worry or anxiety, then these disturbances exist for long periods of time and the complaints the patients have are due to these long continued altered physiological functions. If the patient eats a heavy meal at night and is worried, the meal lies there undigested. Long continued emotional strains are thought to cause the menstrual disturbances so common in college women and we know that lactation is always a failure in a worried mother. While polyuria is a sign of a shortly continued emotional disturbance, it is now thought that diabetes insipidus is an expression of a long continued emotional disturbance.

The common complaints which we encounter can all be traced to these disturbed physiological functions which accompany worry. Distress in the abdomen, nausea, vomiting, disturbances of the large bowel, tachycardia, pain and constriction of the heart, occipital headaches, joint pains can all be directly traced to these disturbed functions. The conditions of shell shock and soldier's heart in the World War were due to being repeatedly subjected to extremely severe emotional disturbance.

These distresses are extremely real to the patient, the nausea and vomiting that is due to emotional disturbance is just as real as the vomiting which accompanies pyloric obstruction. It seems quite probable that the vomiting of pregnancy if not caused by it is certainly aggravated by emotional disturbance and if the treatment of it does not take this factor into consideration it is ineffectual. These patients all become extremely introspective, they are worried about cancer and become conscious of normal activities of the internal organs which should be entirely subconscious. The number of patients coming for relief

of these distresses, which we now know are due to emotional disorders, is greatly increasing. It is estimated at the larger centers where patients appear for examination that no organic pathology is found in from forty to sixty per cent of the patients, which means that the complaints are all due to these emotional disorders. Fully one-third of all abdominal complaints have no organic basis. It is extremely difficult to rule out the possibility of ulcer of the stomach. The cases going about under the name of colitis or irritable bowel we believe are nearly all expressions of these emotional disorders. These disorders have been grouped under the heading of neurasthenia, which may be defined as a functional nervous disorder due to faulty physiological adaptation to the stresses of life and represents an ineffectual but constant struggle against difficult environment and leads to various forms of mental and bodily inefficiency. The cause, I believe, is to be found in our greatly combined and strongly competitive social organization. In all industries there have been great combinations until the individual is sunk in a corporative mass with inability except for the very exceptional man to get adequate expression for his personal ambitions. The terrific competition of modern business with accompanying worry and fear is the cause of the disturbances of function, which is the basis of their complaints. Efficiency experts are concerned only with statistics and dividends with no thought of the human machine that must produce them.

The life history of all these sufferers, regardless of their specific complaint, is very similar and it can be well summed up in the word *inefficient*. While at work they accomplish little and they lose much time in running around looking for a cure. Vainly they go from one physician to another and how frequently their first word is: "I hope you can find out what ails me," or "I hope you can help me," but they usually fail to get it and wind up in the hands of some of the cults or at some such mecca as we now hear so much about out in South Dakota. They earn very little and spend what little they have in trying to get well. Until we learn to take into account the emotional stress, under which each of these individuals is laboring, these patients will continue to fail to get relief.

It has been said that these neuropaths are all weak members of society and are not worth the effort it takes to help them, but we find very many people who would have been extremely useful members of society but for their emotional discomforts. One of the most distressing cases that has come under my personal observation is a college professor who is an extremely capable man but developed an emotional disturbance in the

form of the so-called colitis, for which he had the best of medical advice but like all others he went from one to another and finally was forced to leave his profession prematurely. Medical science should have been able to save this man.

The worst thing that can happen to one of these sufferers is to be told there is nothing really the matter with him—they have all heard it far too often. If we stop to think of it, we will see that it puts the patient in an extremely humiliating position to go to the expense and take his time to go to a physician and then be told there is nothing wrong with him. You cannot blame them if they are disgusted with the medical profession and go to some of the cults seeking relief. They are sick and it is our fault that we fail to find out what their trouble is.

One of the greatest problems is to be sure of our diagnosis. Without the most careful and painstaking examination, one is never justified in assuming that the complaints are functional in origin because there is no obvious morphological cause. They must have a most thorough, painstaking search for organic pathology. Fortunately they are always willing and anxious to have you give them a thorough examination because they are sure there is something radically wrong. After a careful study of the patient and becoming convinced that it is a functional disturbance, then it is a problem of keeping the patient's confidence. In this condition more than in any other are Galen's words most true: "He cures most successfully in whom the people have the greatest confidence." and by sympathetic understanding of our patients we can save them much. However, at the present time people no longer have a family doctor with whom they stick through thick and thin, but are prone to run around from one physician to another for all ailments, so it is little wonder they do with this. They have usually had many careless examinations and snapshot diagnoses and wind up utterly confused so it is extremely difficult to restore the confidence of these patients, but it is the one thing that they need most of all. One of the greatest harms that can possibly come to one of these sufferers is poorly advised surgery. Whenever you encounter a patient with very severe symptoms and rather minor findings as the cause of them, be very careful about advising surgery.

They all want something done that is going to make them over, and will undergo any surgical procedure to regain their health, but how disappointed they are when they still feel the same after the operation. Exploratory laparotomies have been done frequently on these patients just to prove to them that there is nothing wrong inside the abdomen, but it only serves to make mat-

ters worse and the shock of an operation is always a serious drain on an already depleted nervous system. One I have in mind insisted she had a chronic appendix and finally, because she had a slight increase in temperature, a physician advised removal of the appendix, but the shock of the operation put her in bed for two years. Whenever pathological tissue which may be aggravating their condition such as infected tonsils and infected teeth are found, they should be removed but one is unwise to promise these patients too much for they are still going to be neuropaths after their removal.

The disproportion between surgical fees and fees for medical care may be a reason why physicians as a whole are more interested in organic pathology than the functional disturbance due to emotional stresses. We have all seen these patients of both sexes in all walks of life who are living inefficient lives because of their neurasthenic discomforts, and have sent them on their way classified as a neuro, with a short expressive adjective modifying the term, and that is all the relief they receive at our hands. With such treatment at the hands of the regular physician, is it any wonder they wander off into the hands of the cults? It is a whole lot easier to spend a few minutes in the operating room and get a big fee for it than it is to spend hours of the hardest kind of work with sick folks listening to their tale of woe for a small fee. I have recently heard a physician say he had little to do. "Oh," he said, "plenty of little stuff but no big stuff," meaning no surgery, and in another case I wanted a surgical consultation on a patient with vague abdominal complaints and was told "If there is any surgery to do, I can help it." However much we might wish it, sick folks are not interested simply in being operated on and why should they wish to undergo a painful experience for someone else's financial benefit.

The people themselves feel that the medical profession is too anxious to operate and does not give them as much attention to their complaints which do not require surgery. There are certain things for which surgery must be done but the great bulk of any physician's business is in non-surgical conditions and one of the greatest of these is in this field of emotional disturbances. Fee splitting is a curse to the medical profession, not because of the danger of traffic in patients but because it closes the eyes of the general practitioner to the best business that comes to his office. When a physician has his eyes fixed on surgery, he is very apt to neglect his medical cases. Now what can we do for these patients? The first thing is to find the cause and this in a great many cases is ex-

tremely difficult for they will tell you everything except the one thing that is bothering them, and it takes a lot of time but these patients are usually willing to pay you well if you really help them.

One patient came in with attacks of diarrhea. She knew something about tuberculosis of the bowel and thought she had it. It took weeks to find out the cause of her diarrhea. She was president of the Ladies' Aid and every time the Ladies' Aid met she had an attack of nervous diarrhea. Another young woman thinking she had heart trouble came in and complained of swelling of the feet but I could never find it. A physician, after a superficial examination, two years previously, had told her she had heart trouble and gave her medicine for it without relief. Only after persistent inquiry did I find out that some of her family had died of heart trouble and she thought she had it. The success of the Weir Mitchell treatment was not due to the particular things he did but rather the confidence he restored to his patients, so if we can get down to the serious business of taking care of these sick folks who are laboring under emotional disturbances, we will be doing humanity a great good and ourselves a financial benefit. As Peabody says: "Death is not the worst thing in the world and to help a man to a happy and useful career may be more of a service than saving a life."

THE POST MORTEM EXAMINATION*

G. H. HANSMANN, M.D.
Iowa City

I am called here this evening to say a few words concerning post mortem examination. Permit me to say, at the very beginning, that many people talk and write about post mortem examinations. If we expended the same ardor that is put into speech and print in obtaining all that we can get out of post mortem examinations, the interest developed would demand practically 100 per cent post mortem examinations and the pathologist would be the most needed medical man. He would be chosen in accordance with his ability to practice pathology, of which post mortem examinations form no inconsiderable portion and the most important part. I am sorry to report that an institution usually feels that everything has been accomplished when the percentage figure for post mortem examinations remains satisfactory, and that in the choosing of a pathologist little consideration is given to his ability to practice pathology. This is a cockeyed view of medicine because medicine is an applied science and the post mortem is its greatest "Growth

*Read before the Des Moines County Medical Society. From the department of Pathology and Bacteriology, College of Medicine, State University of Iowa.

Promoting Vitamin." Personally, I would rather make a post mortem examination here this evening than to talk on the subject, but this has not been arranged. Since I must talk, I wish to consider certain very definite points, namely: the terms used in speaking of post mortem examinations; of what the examinations consist and why we perform them; who should make the examinations; how this community benefits from post mortem examinations; how the service may be extended; the cost of post mortem examinations; opposition to the examinations; responsibility of larger institutions for the status of the practice of pathology.

Examination of a body after death is designated by three names: Autopsy, necropsy, and post mortem examination. Autopsy means self-view and does not designate an active examination. It is, however, widely used. Necropsy and post mortem examination indicate observation made of the dead body. I prefer to use the term post mortem examination since it most accurately characterizes the procedure. Because of the wide usage of the word autopsy, I don't expect that we shall ever be able to discourage its use sufficiently to cause its disappearance from medical nomenclature.

Of what the post mortem examination consists and the reason for making it is variously interpreted by different groups of people. Some institutions consider a satisfactory percentage figure a necessary part of the hospital record with no further concern about it. The law looks upon it as a cutting and sewing process by a person with proper permission. The layman, the medico-legal person, and the vital statistician are only concerned with the cause of death. It makes little difference what the cause is as long as one is assigned. They will not take undetermined or undeterminable for an answer. We, as pathologists, on the other hand must occasionally admit that the cause of death is not clear. The doing of post mortem examinations hemmed in by such horizons would hardly be worth while. The scientific medical man has a much broader conception of a post mortem examination. To him, it means a proper permission, a digest of all the clinical findings including x-rays and clinical pathology; investigation of the body by all means which will clear up past illnesses and the present illness. I refer here, to the physical, chemical, anatomic, physiologic, bacteriologic, and experimental procedures. His endeavor is to carry this information into the service of mankind. He is always looking about for students who may profit by the study. He is always on the alert for something new. He sees to it that the family and community's health is taken care of, if the case has a direct bearing upon it. He never fails to point

out errors in the clinical diagnoses or findings which have been overlooked, or helpful procedures which were not attended to. He reflects upon whether or not facts obtained here might not be elaborated by various types of additional investigation. Last of all, groups of such men gather in clinical-pathologic conference, review all of this evidence, discuss controversial points, and offer suggestions as to how the information obtained can be used in the recognition and treatment of a similar disease. Finally, the examination is not complete until all the information is recorded in an unequivocal manner. If the common duct is cut, it must be clearly recorded. If a sponge is left in the abdomen or chest, it should be stated in so many words. No one is to choose what shall go into a post mortem examination and what shall be left out. It should be a simple but rigid statement of fact. This broader concept of a post mortem examination is extremely interesting and is of great service to mankind directly and indirectly.

Applied pathology and bacteriology should be done only under the supervision of a graduate of medicine. There is quite as much to the interpretation of the findings as there is to the interpretation of clinical observations. The pathologist who intends to make post mortem examinations should have a great deal of information at his immediate command. He meets men from all specialties and he is supposed to talk the language of each. He has only a few hours, and many times only a few minutes, for the entire consideration of a case. Even though he sections organs and studies them microscopically, much is usually lost if he does not appreciate the nature of the disease at the time the post mortem examination is made. It requires a minimum of three years, and preferably four years of concentrated work in scientific medicine by a person with a high degree of equanimity and with average or above intelligence in the preparation for the practice of pathology. During this time he must assume direct responsibility of not less than 200 thoroughly done post mortem examinations. He must make a study of at least 400 examinations similarly done. He should not be permitted to classify as a post mortem pathologist until this is done. It is desirable to have one of the four years in a well organized department of Internal Medicine. Some hospitals have been advised to send away a technician for training, preliminary to standardization, and a 15 per cent necropsy percentage is required. The employment of a practitioner of pathology, as above indicated, would solve both of these problems. If a good practitioner of clinical medicine will not require more than a 15 per cent post mortem percentage, the pathologist is of no account. The converse is

true of the clinician if an adequately trained pathologist is available. If the pathologist cannot train his own technicians and have control over them, he is of no account. Certain hospitals are, however, willing to spend \$4,000 for a pathologist to meet "Standardized Requirements" and get nothing but the title for the expenditure, rather than to expend \$8,000 and obtain an adequate pathologic service plus standardization. The former arrangement is irrelevant to medicine, but hospitals must be standardized whether it means anything or not. It would appear to me that it would be much more to the point to have a single hospital standardized with a satisfactory yardstick than to have hundreds standardized on as many standards. I can say for the practice of pathology in hospitals that the only thing which needs measurement is the ability of the pathologist. According to my observations, there has been very little work done on this point.

The value of post mortem examinations comes to everyone who practices medicine and to many individuals of all communities no matter how far they are removed from the actual scene. Every journal, every pathologic text, and every system of medicine has between its covers many post mortem experiences. In fact, an article purely clinical is not given much consideration. Whoever reads R. C. Cabot will find that he makes his diagnoses practically entirely upon post mortem findings in so many cases of this or that. I am here to bear witness that his diagnoses are the most accurate on the post mortem check-up of any clinician with whom I have come in contact. This indicates the concrete usefulness of all post mortem examinations, reliably done, whether current or past.

The post mortem can be extended even in this community. If possible, a satisfactory pathologist should be employed. If that cannot be immediately arranged, the quickest way of bringing it about would be to provide and equip a place for the making of post mortem examinations. This place is put under the direction of a diener to care for it and if physicians were confident that it was being kept up, post mortems would be done. Each physician under such an arrangement would feel a personal responsibility for his own post mortem examinations.

Start humbly! The clinician who doesn't visit the dead house and the pathologist who doesn't collaborate and is unwilling to meet the clinician are the only people who can maintain "The Los Angeles Attitude" in the practice of medicine. The rest of us must be humble. We are compelled to admit that there are many things as yet unknown: that there are many things, well described,

which have not come to our attention; that the knowledge of some subjects which we have studied in particular is very imperfect. The scientific attitude and a start at post mortem investigation will do much for imperfect knowledge and for facts not known or not appreciated. Such a program once started will gather momentum. You will soon see the need for a highly trained pathologist's help and, by that time, you will know how to use him efficiently. Such collaboration will determine the standard of medical practice. I can easily remember when internes did post mortem examinations, without direction, in the University Hospital in Iowa City. It seemed a shame to make the examination for what we understood about it when we got through, but we carried on. The material so obtained can be presented at conference and if it is not understood, it may be solved there. If a satisfactory place were kept in order to make a post mortem examination, an examination would be more in order than this discussion.

Even the pathologist has not escaped the two primary biologic instincts. It is, therefore, necessary to discuss the cost of post mortem examinations. If the pathologist makes on the average of one examination a day according to the above outline, he has done a good day's work. A great many men will not adhere to so rigid a schedule. For this work, housing, instruments, chemicals, a technician, a secretary, and a diener would be necessary. The expenditure to maintain such a laboratory would be about \$14,000 a year. This means that a post mortem examination, thoroughly done, calls for the expenditure of approximately \$40.

In the obtaining of the permission, the first opponent one meets is the relative. His opposition, if given frankly, is justified. There should be no duress in obtaining the permission. Duress is harmful. If you review for the relatives the benefits of the post mortem and if you have prevented them from hiding behind a religion, few fair minded people will refuse to sign the permit. The second person likely to oppose the post mortem examination is the undertaker. His opposition is not justified. It is practically always a poorly trained embalmer who objects. The undertaker should understand the value of the post mortem examination and he should pride himself on rendering a service to humanity in addition to burying its dead. Needless to say, the post mortem pathologist should cooperate with the undertaker in every possible way. After the post mortem is completed, one occasionally confronts the law. The law considers only him who cuts and him who sews and the permission he has for doing so. Permission must be from the nearest kin. This means legal kin and not genetic kin.

For legal kin there is no definition. A court proceeding is, at times, necessary for the interpretation of the word kin. The person who makes the examination is responsible for its authenticity. This works a hardship on the pathologist. In the first place, most of the post mortem examinations are done in institutions. The patient's physician rightfully obtains the permission from the one whom he considers the proper relative. The administrator passes upon its legality and the pathologist performs the necropsy. How can a personal matter be made out of it? Each person acting individually would render the administration functionless and disrupt the institution. Nevertheless, the pathologist must go into court and hear the law which is in this case no relative of justice. Usually it is some forgotten relative who hears of the necropsy and who finds a lawyer willing to prosecute. A pathologist of experience would certainly not touch a body if there is a relative of nearest kin whose whereabouts are not known by the family. In short, one has no difficulty with responsible people even though the law is not strictly followed but faith is kept. Any lawyer, any undertaker, or any relative who objects to a post mortem examination made in good faith is not worthy of the benefits to be derived from modern medicine, benefits made possible by generations of unselfish individuals through the granting of post mortem permissions. The only remedy for these unjust legal practices since they cannot be removed is insurance.

A few institutions like Iowa have kept applied pathology intact. Not only that but most of the applied bacteriology is under the same management. In some institutions, pathology and bacteriology are separate. In pathology, one encounters many situations: the surgical pathology done here, the gynecological done there. Someone is made responsible for the eye pathology, and the true pathology laboratories are barren. I have had great sport in these various places asking individuals on services who were doing their own pathology, "If you had a piece of questionable tissue removed, I suppose that the examination would terminate with the examination by your special pathologist?" With few exceptions, the answer has been, "No, I would want it examined by a recognized pathologist." I would then ask, "Should not all patients have the same privilege?" I have received few answers to this question. In my experience in pathology, I have frequently observed a special pathologist coming to a general pathologist with a section. This dislocation of specimens to various clinical departments, not only leads to unreliable pathology, but it is also very much more costly to obtain these unreliable results. It has also caused a dearth of pathologists.

I am mindful of the fact that every medical man should know some pathology, especially gross pathology, as well as the fact that every pathologist should know some medicine. But this practical gross pathology should be taken under no other than a recognized pathologist who cannot afford to ride hobbies. To meet this obligation, we have had in the Department of Pathology in the last five years 16 clinical men. This opportunity of observing all of the pathology and bacteriology, centralized as it is at Iowa, has made it a very profitable year for each of them. Senior and junior students scramble for the opportunity of maintaining themselves at Iowa to act as volitional assistants in the department during the summer months. In a few years these men will be scattered throughout the states. Work of this sort is fundamental and will go much farther in the raising of the standard of medical education and practice than any set rules for standardization of hospitals. Furthermore, it is an important part of medical education which no type of medical curriculum can include.

TRAUMATIC EARS*

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The accessibility of the auditory apparatus to external forces places our sense of hearing in a rather vulnerable position, therefore, the otologist is frequently called upon to see the "Traumatic Ear Patient."

Factors involving the etiology of pathological ear conditions can be divided into those of direct and indirect violence:

1. Direct:
 - a. Lacerations of ear structures.
 - b. Box on the ears.
 - c. Unskilled attempt at removal of foreign bodies.
 - d. Tubal inflation, especially with cicatrized membrane.
 - e. Burns (alkalies, acids, hot water and oil, and molten metals.)
 - f. Penetration of foreign bodies into the canal.
2. Indirect:
 - a. Sudden explosions-concussions.
 - b. Skull fractures through various angles of the temporal bone.
 - c. Severe blows to the mastoid region.
 - d. Occupational (boiler makers, telephone operators, etc.)
 - e. Retrusion of the condyles for lack of, or improper dentures.

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Such injuries are sustained in various ways and at all ages and they may or may not involve structures of vital importance.

a. Gunshot and shrapnel destruction as well as concussion trauma were frequently met with during the war.

b. The occupational injury is most often met with in the noise producing trades such as heavy iron workers, stenographers who use dictaphones and telephone operators who frequently receive destructive lightning shocks.

c. Auricular lacerations may be severe enough to eventually cause canal atresia, numerous cases with successful operative results are reported in the literature. Atresia most often follows burns.

d. Tympanic membrane is ruptured in many different ways; lawn tennis, golf and baseball being common offenders. Often patients suddenly become deaf while blowing an obstructed nose which ruptures the drum by sudden exhaust of air through the tube.

e. Skull fracture from automobile injuries and falls in all classes of labor is probably the most frequent as well as the most serious source of traumatic ears.

EXPERIMENTAL PATHOLOGY

Brunner's¹ conclusions are that the pathology of head injuries in cases in which the patients recover is probably different in many ways from that in cases of severe trauma in which the patients succumb, an attempt must be made to gain by animal experimentation some knowledge of what has taken place in the skull and ears of those injured persons who recover.

Stenger² attempted to find out if, after a mild injury, there were changes in the inner ear analogous to those in concussion of the brain. He experimented with rats by striking their heads with light, heavier and still heavier blows, attempting, however to avoid fractures of the skull or of the temporal bones. The animals became partially or completely unconscious, from which state they recovered after a time. The animals were then killed by careful bleeding, some as late as from three to four weeks after the injury. The microscopic examination showed hemorrhages into the inner ear in all twelve rats, depending, in a degree, on the force of the blow used.

In the more mildly injured rats there were (1) hemorrhages in the region of the round window, and (2) hemorrhages in the basal coil of the cochlea, while the vestibule and semicircular canals remained free.

In the somewhat more severe injuries there were (1) more marked hemorrhages into the

cochlea extending up to its very tip, but mainly in the scala tympani, (2) more marked hemorrhage at the round window, (3) mild hemorrhage inside the ductus cochlearis, and (4) occasional hemorrhages into the ampullae.

In the most severe injuries the hemorrhages seen were the same as in the second group, but, in addition, in some cases, the round window appeared torn and there was marked bleeding between the fibers of the acoustic nerve itself. Not in any of the animals was the temporal bone itself injured.

In an endeavor to find out what changes take place in the inner ear in *commotio cerebri et auris internae*, Brunner repeated the original experiments of Stenger, using guinea-pigs, however. In these animals he could not find any definite changes in the neuro-epithelium of the inner ear, but he did find pathologic changes in the blood vessels, in the perilymph and endolymph spaces, in the aqueducts and in the membrane of the round window.

1. There was marked engorgement of the blood vessels in the basal portion of the cochlea. In the perivascular spaces there was an exudate which stained with eosin and an increase in the number of lymphocytes. These vascular changes were seen in all the animals, though not always to the same degree.

2. Petechiae were noted between the nerve bundles of the maculae and cristae. These were not abundant. In the scalae, however, petechiae were more extensive. Brunner did not regard these petechiae as suffocation processes, as did Alexander, because Brunner's animals were killed in quiet narcosis by bleeding the heart. He thought that these petechiae were due to a diapedesis, because cut vessels were not seen.

3. The aqueductus vestibuli rarely showed any changes, though in one case its walls were edematous. The aqueductus cochleae, however, was filled with blood and exudate in all cases except one. The blood and exudate must have arisen from the perilymphatic spaces of the inner ear.

4. Hemorrhages were seen at the origin of the membrane of the round window. These were regarded by Brunner as due to a wave motion of the perilymph and endolymph at the time of the impact, because, just at this moment, the intracranial pressure is increased. He regards this excursion of the round window membrane as an ectasis of the cochlear aqueduct which serves as a protective mechanism for the more delicate neuro-epithelium.

Brunner believed that some of the degenerative changes after injury are due to direct insult

to the nerve tissue by trauma itself but that the larger part of the damage is due to the effect on the nerve tissue of the injury to the vasomotor center.

As the vessels of the inner ear are in direct communication with those of the brain and are similarly innervated, Brunner thought that a condition of prestasis could exist in these vessels even as it exists in the brain in *commotio cerebri*. In his experimental animals he found an edema in the perivascular connective tissue of the modiolus. This condition was, however, never found in the connective tissue of the cristae or maculae. Here the exudate was poured out into the hollow spaces.

Brunner designated these vascular changes in the inner ear by the term "*otitis interna vasomotoria*" with the understanding that the word "*otitis*" does not have any connection with infection but is, in this instance, a disturbance in the circulation of the ear due to an involvement of the vasomotor center.

It is seen, thus, in all this experimental work in which an effort was made to simulate, as much as possible, injuries of the head sustained by human beings, and in which the animals could be killed at any period after the injury, that the changes, in the main, were similar to those described under the section on pathologic changes in human beings. The changes in the inner ear were always more marked in the cochlea than in the vestibule and consisted, for the most part, of hemorrhages. These were always most marked in the basal coil of the cochlea and in the vicinity of the round window.

Furthermore, these experiments have shown, as Brunner pointed out, that in these cases of injuries to the head one cannot regard the ear as being injured in an isolated fashion. It must be remembered that in every instance the brain itself is also injured. The stability of the vasomotor control is lost. The nuclear territory at the floor of the fourth ventricle suffers particular damage, whether it be from direct insult to the nerve tissue or only from degenerative changes in the vestibular and cochlear nuclei caused by the vasomotor changes in the circulation of the blood in this territory, or from both of these causes.

The experiments also show that there is little relation between the severity of the injury and the degree of the damage. The animals were, for the most part, subjected to light injuries, and in only a few instances were the bones of the skull or ear fractured.

Therefore, from a pathological standpoint due to injuries of the ear you can divide them into fractures of the labyrinth capsule and those of

hemorrhages into the labyrinth. Or (1) damage to the inner ear with injury to the bony labyrinthine capsule, (2) damage to the inner ear without damage to the bony labyrinthine capsule, (3) damage to the inner ear without a demonstrable lesion to the skull.

Such a classification disregards any central lesion which might effect the ear due to injury of the brain at the time of the accident.

HUMAN PATHOLOGY

I have not had the opportunity to study the pathology involved due to lack of autopsy material, therefore must draw this section from the literature of those more fortunate. And this information may not be entirely conclusive because patients who recover may have had a different pathology than those that go to autopsy.

The observations in four cases reported by Barnick³ in 1897 were:

1. In all cases there were hemorrhages in the narrow nerve canals leading to the otolith apparatus of the saccule and utricle and to the ampulae of the semicircular canals.
2. Massive hemorrhages were seen in the vascular region of the macula.
3. Regular bleeding appeared in the perilymph spaces.
4. Exudations of blood into the endolymph spaces were rarely seen.
5. Massive hemorrhages occurred in the tympanic scalae of the basal coil of the cochlea. This author believed the loss of hearing for the high tones in the recovered patients was due to the injury in the basal coil of the cochlea.

Sakai⁴ studied ten temporal bones shortly after death from skull fractures and reported the following observations:

1. The bony labyrinthine capsule was not fractured in any case.
2. Hemorrhage occurred at the region of the round window membrane eight times and at the oval window eight times.
3. The ligamentum annulare was torn only once.
4. The acoustic nerve and its branches showed marked hemorrhage in all cases. Of the two main trunks, the cochlear nerve showed a rupture of its fibers eight times and the vestibular nerve four times.
5. There were hemorrhages into the soft parts of the utricle, saccule and canals five times.
6. Hemorrhage into the facial nerve occurred once.
7. Hemorrhage into the fallopian canal was seen four times.

8. Hemorrhage into the ligamentum spirale occurred twice.

9. Hemorrhage into the ganglion spirale was observed twice.

Lange,⁵ presenting the examination of the petrous bones of fourteen patients who died of fracture of the skull, called attention to the following facts:

1. Damage to the bony labyrinthine capsule was infrequent.

2. The tegmen tympani or antri was fractured in every case.

3. The tympanic membrane and external canal walls were often injured.

4. The oval and round windows were always intact.

5. There was always more or less blood in the depth of the porus acusticus internus.

6. Blood was found in the nerve canals, particularly in the branches of the vestibular nerve.

7. Complete tearing of the nervus acusticus was never seen, but separation of its fibers by blood extravasations was made out.

8. Damage to the facial nerve was not observed.

Ulrich⁶ studied microscopically eighteen temporal bones of patients dying from basal skull fractures. In seventeen the line of fracture was parallel to the pyramid. Most of the fractures were along the anterior edge of the pyramid and involved the roof of the middle ear. The middle ear is always injured by this type of fracture. The vestibular nerve is most easily and often damaged, the cochlear nerve next and the facial nerve least. The vestibular end organ was rarely injured. On the contrary, there were signs of injury in the cochlea in all eighteen cases, the most common observation being hemorrhage.

1. All the hemorrhages are in the perilymph spaces, never in the endolymph spaces.

2. The origin of the hemorrhage is always in the scala tympani, and usually in the vicinity of the round window.

3. The tympanic membrane is ruptured only in cases in which the margo tympani is involved.

4. The farther from the ear the fracture lesion is, the more insignificant are the ear lesions.

5. Direct damage to the facial nerve in these longitudinal fractures of the pyramid is not common.

Voss⁷ recently reported an interesting histologic study of thirty temporal bones of infants who died soon after birth, presumably from pressure. In all of these he found a marked widening and tense filling of the blood vessels of the entire organ of hearing. These extended from the drum over the middle and internal ear, the

bony spongiosa, the facial and carotid canals and the porus acusticus internus to the dura of all three pyramid surfaces. There were, furthermore, microscopic and macroscopic exudations of blood, particularly in the basal coil of the scala tympani.

Alexander⁸ studied his case forty-four days after the original injury to the head. The inner ear of a man who died forty-four days after a gunshot wound in the right parietal region was examined histologically by Alexander. Death resulted from meningo-encephalitis. Clinically, the man was unconscious immediately after the injury and then he suffered from severe headache, vertigo, tinnitus, nausea and vomiting. Both tympanic membranes were normal. The hearing acuity was slightly diminished. Bone conduction and the upper tone limits were slightly shortened. The watch test on the bone was negative on the right side and positive on the left side. There was spontaneous horizontal-rotary nystagmus to both sides in the end positions, infrequent and of slight intensity. The reflex irritability of both labyrinths was pathologically increased. The histologic examination revealed the following:

1. There was a circumscribed loss of sensory cells in the cristae of the ampullae.

2. A narrowing of the cochlear canal through a lowering of the vestibular membrane was observed.

3. There was a loss of the highly organized cells of Corti's organ in the vestibular segment of the cochlea. Corti's papilla was composed of indifferent cells. The impairment of Corti's organ by the traumatism was quite grave in the vestibular segment.

4. Atrophy was observed in the peripheral cochlear nerve going to the vestibular portion of the cochlea and also in the corresponding portion of the spiral ganglion.

5. Corti's organ was injured in only circumscribed areas in the basal coil.

6. The changes in the basal papilla of the upper portion of the basal coil and of the middle convolution were much slighter.

It is therefore seen that in this case of Alexander's degenerative changes took place in the neural tissue of the end-organ in regions in which one would expect to find them when one recalls where the hemorrhages were found in the cases of Barnick, Lange, Sakai and Ulrich.

SYMPTOMS

The symptomatology of each individual case depends entirely upon the auditory structure involved and their severity may or may not be in

proportion to the intensity of the trauma. Roughly they may be divided into those of:

1. Tympanic lesion.
2. Middle ear.
3. Inner ear.
 - a. Cochlea.
 - b. Vestibule.

Headache is the most common. It varies in character and is quite irregular, usually aggravated by any physical excess. This symptom is probably due to congestive features localized at the traumatic area.

Deafness depends entirely on the degree of injury to the important structures, either the conducting apparatus, the cochlea or the nerve trunk itself. That of the middle ear is usually mechanical and lends itself well to treatment.

Vertigo must be rotary to establish labyrinthine involvement if spontaneous vestibular nystagmus is associated.

Tinnitus may be caused by any form of tympanic or labyrinthine disease and may result from other conditions not dependent upon disease of the auditory apparatus. The various types are (1) obstruction sounds, (2) blood sounds, (3) labyrinthine sounds, (4) neurotic sounds, (5) cerebral sounds. Thus the importance of a careful physical examination of the ear becomes evident from the fact that any appreciable lesion in any portion of the conducting apparatus must act at least as a contributing cause in the production of tinnitus.

Nystagmus and ataxia are the other two symptoms associated with vestibular irritation. Barany⁹ was the first to observe certain seemingly constant relations between vestibular vertigo and ataxia and vestibular nystagmus, which he formulated somewhat as follows:

1. Spontaneous vertigo of vestibular origin is always accompanied by some degree of spontaneous vestibular nystagmus, and is always increased when the eyes are voluntarily turned in the direction of the quick nystagmic movement.
2. Vestibular ataxia is always accompanied by nystagmus, and is always influenced by the position of the head.
3. A person exhibiting vestibular nystagmus tends to move within the plane of the nystagmus, and to fall in the direction opposite to the quick nystagmic movement.

PROGNOSIS¹⁰

If the vertigo is of a true labyrinthine origin little improvement may be expected.

In neuroses which often develop in these cases the vertigo is of prime importance. We should be careful in the differential diagnosis in the laby-

rinthine symptoms of these cases. They as a rule will show an improvement under treatment after a compensation settlement. The true vertigo reappears from time to time for years after the trauma. This impairment is probably worse than the loss of hearing.

With regard to the loss of hearing some improvement may be expected only when the middle ear type is encountered in young persons. When the loss of hearing usually occurs in the upper tone range and is accompanied by the shortening of bone conduction hearing cannot be expected.

The prognosis of transverse fractures of the pyramid is bad because it is as a rule attended with the death of the patient. If death does not occur hearing is absolutely lost.

In the longitudinal fractures of the temporal bone through the tegmen tympani rupturing the drum and fracturing the external auditory canal have had a bad prognosis. This is due to the fact that this bone heals by fibrous union which may lead to meningeal infection from the middle ear.

TREATMENT

- 1—Is primarily symptomatic
 - a—Bed rest until seriousness of inner ear involvement is ruled out or in inner ear lesions this should be extended until absorption of exudates is ruled out. Supportive treatment if necessary.
 - b—One should avoid any middle ear retention of blood or purulent exudate.
 - c—Necessary plastic measures to retain external canals in lacerations and burns.
 - d—Elimination of noises when possible in occupational lesions. In the trades of constant severe noise where hearing isn't necessary, vaselined plugs are essential because it has been proven that deafness from such causes is due to constant trauma of air conduction.
 - e—Surgical measures that are necessary to remove offending foreign elements.
- 2—Pure inner ear lesions of the skull fracture type demand the utmost conservatism. Headaches, tinnitus and vertigo should be reduced by drugs as soon as possible to eliminate onset of neurosis when the patient becomes ambulatory.

CONCLUSIONS¹⁰

1. The intensity of the injury bares no direct relation to the cochlear or vestibular symptoms.
2. In skull fracture the temporal bone is usually involved because of the unequal strength of its constituent parts.

3. Even in fracture of the temporal bone, the longitudinal fracture being the most numerous, the labyrinth is not injured by rupture but by concomitant concussion and usually involves the middle ear and external canal by direct fracture. The transverse fractures are more rare but more destructive in that they cut across and completely destroy the cochlea and vestibule.

4. By far the most frequent pathology of the patients who died were hemorrhages. These are perilymphatic unless the capsule of the labyrinth is fractured. The region most frequently involved is the scala tympani in the vicinity of the round window. The nerve itself can be torn or damaged by hemorrhagic pressure before their entrance into the pyramid.

5. Pathology in old cases is atrophy of the nerve fibers, atrophy of the organ of Corti, more marked in the basal coil and a complete or partial filling of the inner ear spaces with hyalin, connective tissue and bone.

6. The vast majority of cases reported where both ears hemorrhaged constitutes evidence of longitudinal fracture of the temporal bone.

7. Vertigo, if of a rotary quality coming on in attacks accompanied by nystagmus is a cardinal symptom of injury to the vestibular system.

8. Spontaneous nystagmus of a unilateral or bilateral type is a cardinal symptom and usually it is of a rotary-horizontal character and will as a rule be more marked on one side.

9. Past pointing, falling and Rhomberg reactions must also be considered.

10. Either hypo or hyper irritability of the labyrinth to caloric stimulation is noted in most cases.

11. Positive Rinne, shortened bone conduction is often the rule in labyrinthine cases.

12. The end result of deafness will be a general cutting down of the tone range and a definite lowering of the upper limit due primarily to the fact that the end result of traumatic pathology injures or destroys the nerve element of the auditory apparatus.

Traumatic ear cases have a rather indefinite symptomatology and an irregular prognosis. However, with careful study of symptoms and physical signs and proper consideration of experimental and human pathology reported, with conservative treatment, a specialist is working in a fairly accurate field.

Case Reports

Case 1. Mrs. B., age 42, complained of full feeling in her left ear. No further history could be elicited. Examination revealed a pure tympanic lesion, a hematoma between the two layers of the drum. Upon questioning the patient after freeing

the hematoma by incision, she admitted being "kissed in the left ear." An uneventful recovery with no permanent disability.

Case 2. Mr. C., age 32, after working in heavy dust in a cereal mill, attempted to blow his nose several times and finally his right ear began to bleed. Examination revealed small rupture in shrapnel's membrane and bulging posterior, inferior quadrant. Almost total deafness to the conversational voice, tinnitus. Treatment myringotomy, posterior inferior quadrant, daily cleansing. Uneventful total recovery.

Case 3. Mr. S., age 19, riding in an automobile lighted a three inch salute firecracker, attempted to throw it from the car, struck a top bow flying back toward the patient, went off close to the patient's left ear. Profuse bleeding, vertigo, pain, falling to the left, tinnitus, past pointing to the left, deafness. Ear drum ruptured posterior inferior quadrant. Aseptic treatment. Uneventful healing of the drum. Patient now has a feeling of weight in the ear on stooping over. Hearing was cut down throughout the entire range.

Case 4. Miss S., age 20, telephone operator, and Mrs. H., age 42, stenographer. Two similar cases of occupational nerve lesions, both suffering from a more or less constant tinnitus and the latter by constant use of the dictaphone with characteristic nerve deafness.

Case 5. Mr. C., age 37, fell from eighth floor scaffolding, through the roof of a building covering construction equipment. Basal skull fracture by x-ray, ears bled for five days, patient was unconscious. Conservative treatment. Both ear drums healed. At present time three years after the accident, patient has the following symptoms, (1) Deafness, (2) constant tinnitus, (3) vertigo, (4) no pain but a sense of insecurity proven by the fact only recently when he fell from a low platform resulting in a broken leg, without any particular exaggeration of ear symptoms. Typical audiometer curve is illustrated.

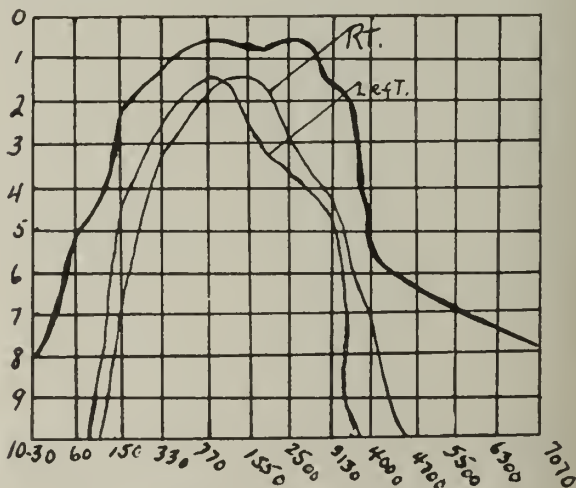


Fig. 1. "Audiometer Curve for Case Report No. 5."

Audiometer curve for case No. 5 is very characteristic of general cutting down of hearing in traumatic inner ear cases.

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Discussion

Dr. C. E. Chenoweth, Mason City—I feel Dr. von Lackum is to be congratulated in presenting to us this statement of experimental and post mortem examinations. We have all had difficulty in knowing how to prognose these cases and anything giving us a better understanding is of great value.

In our practice we have seen cases of gun shot concussion and several who had received a box on the ear by teacher, parent, or playmate, who had considerable loss of hearing which we were unable to explain. We have not seen a great number of injuries involving the temporal bone but during the past three or four years have seen a few that might be of interest.

The first was a boy, age six, who was run over by an automobile. He was brought to the hospital bleeding profusely from the right ear. During the next few days this became a serous and then seropurulent discharge. The discharge continued for several days and he began showing symptoms of mastoid involvement and eventually came to operation. At this time a fracture thru the antrum was demonstrated. He made an uneventful recovery.

The second case was a man 33 years of age who had fallen from a truck and a barrel of oil falling at the same time struck him. He had a fracture of the right parietal bone which extended down thru the temporal bone and at admission was bleeding from the right ear. When there is a bleeding from the ear following an injury, we leave it absolutely alone and do not attempt to find out where the blood is coming from. We left this ear alone and the discharge changed to a seropurulent but eventually healed with a 25% loss of hearing.

The third case was a man who was in an auto accident and was brought in bleeding from the mouth, nose and ear. He walked into the hospital in an apparently dazed condition. He was seen by

our surgeon who found the right ear lacerated, raising it he found a fracture going thru the external auditory canal and up into the parietal bone. No other symptoms were noted until the third day when he developed a facial paralysis, right, which is still present. The injury was on December 29. On January 2, the facial paralysis made its appearance; this is now beginning to clear up and he can nearly close his eye. This nerve injury was thought due to a neuritis or possibly due to hemorrhage into the facial canal. On his last examination his hearing was found normal.

Dr. Thomas F. Gittins, Sioux City—I wish to ask the doctor if he has found in his perusal of the literature on this subject, advice concerning operation on the mastoid where there has been a basal fracture and bleeding from the ear. At one time I heard a good neuro-surgeon advise that the only safe procedure in such cases was to drain the mastoid, with the idea of preventing complications, especially meningitis.

Dr. Theodore S. Blakesley, Kansas City—I feel a little sorry my lecture must be in the joint session. This particular type of injury brings up the point of the value of diathermy. Diathermy is but heat created in the tissues causing absorption of blood, more rapidly than any other method in case of injury.

Dr. Chas. F. Howland, Des Moines—I had an interesting experience last summer. A man was brought into the hospital who was supposed to have fallen from the steps of a passenger coach causing an injury to his head. Being an Assyrian we were unable to talk to him but he gave every evidence of being deaf in both ears. Upon examination the ear drums seemed perfectly normal, there being no evidence of rupture or hemorrhage. X-rays of the head showed no evidence of fracture. The absence of physical findings made us question the man's veracity. We tried the caloric both hot and cold as well as electricity and rotation tests with absolutely no stimulation of the labyrinth. He was watched very closely for several weeks and at no time did he ever show any evidence of hearing anything. Later he was sent into Chicago and placed in Washington Boulevard Hospital with a detective in the same room. All kinds of surprise noises were tried but this man appeared perfectly deaf. The different tests for stimulating the labyrinth were made there with same results, the labyrinths both seemingly dead. It was only after a trick examination of the eyes in a very dark room with a man hidden behind a screen who clapped his hands, that it was detected that this man really heard. The question arises what kind of a lesion of the labyrinth or nerves existed which made it impossible to stimulate either labyrinth and yet the man later admitted that he heard perfectly well and had faked the same deal on other railroads.

Dr. Charles B. Taylor, Ottumwa—I have a case so very interesting that I thought it might not be out of the way to report it here. A boy was playing

football, and jumped into a bush, when a stick about one-eighth of an inch in diameter penetrated the ear drum—it went straight in three quarters of an inch and broke off. The boy has good hearing. Where the stick went or why it did not ruin the labyrinth is more than I can explain. I wonder if some of the gentlemen here could tell me what happened to this stick that broke off in the boy's ear?

Dr. Clarence E. Broderick, Cherokee—In answering Dr. Taylor's question as to where the stick went, a study of a large number of cases which Dr. Prentiss kindly gave me, showed that in about 50 per cent of the cases the stick probably could be passed from the posterior aspect right straight forward into the Eustachian tube. You understand that principle, but as to explaining where it went if it did not go straight back, then I don't know where it went.

Dr. G. F. Harkness, Davenport—I wonder what most men use in perforations. Collodion put in closes it; if the perforation is larger, I often use emulsion of scarlet red.

Dr. Blakesley—Collodion I have used and it works all right and comes off in a few days when the drum heals, and I have used scarlet red but have not seen any particular results therefrom.

Dr. James A. Downing, Des Moines—In the case of traumatic rupture of drum membranes, uncomplicated, leave them alone. Keep everything out of the ear. If bleeding, leave it alone. More damage is done to the ear in trying to find out how much injury has been done and how big the hole is than by just leaving it alone.

Dr. Broderick—I think we quite agree with Dr. Downing that we should not do anything; manipulation should be as gentle as possible. The other doctor's discussion as to where the stick went, if it did not go into the Eustachian tube, I can't say. If it did not go there, I know it did not go into the labyrinth.

Dr. von Lackum (closing)—Regarding Dr. Gittin's question of immediate mastoidectomy in these cases; some authors have recently reported successful results of immediate operation. However, the general trend of the literature is toward the utmost conservatism. The general opinion was that at the time of accident the site of trauma would or would not be infected and that surgical intervention might introduce fatal infections in an area that was originally a sterile wound. However, I can see no reason to hesitate on doing a mastoidectomy and possibly a labyrinthine drainage when either is clearly indicated for immediate and permanent relief of distressing symptoms.

Dr. Blakesley's comment on physiotherapy offers a considerable help in conservative treatment. Of course the end result in these cases is surely dependent upon how quickly and completely the hemorrhages or congestion can be cleared. If physiotherapy can assist us here, it should be heartily endorsed and extensively used. The other doctor's unusual case, given temporary care only, and knowing only the physical side, I think it probably was luetic or a case of congenital anomaly. I think we are get-

ting into a more or less definite track when we see a very indefinite picture or case which we can't uncover with physical findings, in turning toward syphilis. Only recently I had a case of the larynx which was traced through family history.

College of Medicine State University of Iowa

(From the Proceedings of the University Hospital Medical Society.)

CASE OF CHARCOT-MARIE-TOOTH TYPE OF PROGRESSIVE MUSCULAR ATROPHY

C. VAN EPPS, M.D.

From the Department of Neurology

This case was reported firstly, because it illustrated the variation in sensory loss so marked in fact as to raise considerable doubt as to the actual presence of any loss at any time in spite of the history of numbness and pain; secondly, because it illustrated an apparently rare combination of myeloneuro-atrophy and myopathy; and thirdly, because it illustrated a syndrome described in 1886 by Charcot, Marie and Tooth and since known as the Charcot-Marie-Tooth type of progressive muscular atrophy.

As originally described by Charcot and Marie, the syndrome included: (1) slowly progressive muscular atrophy beginning in the feet and legs and not involving the hands and arms until several years later; (2) relative integrity of the axial groups of muscles, or at least much longer preservation of these than the muscles of the distal parts of the extremity; (3) integrity of the muscles of the face, shoulders and trunk; (4) fibrillary contractions in the muscles undergoing atrophy; (5) vasomotor disturbances in the segments of the limbs which have atrophied; (6) usually intact sensations though sometimes they may be affected; (7) the absence of pronounced contractures in the tendons; (8) electrical changes in the muscles undergoing atrophy and (9) hereditary and familial tendencies.

Numerous variations of the above picture have been reported and the pathology has been variously located in the muscles, nerves and spinal cord.

Our patient is a white man of 41 with negative social and family history. He had typhoid in 1919, inflammatory rheumatism in 1900 and a muscle tumor was taken from the right arm in 1927.

His present illness dated back to August, 1927, when a numb ache appeared in the feet and grad-

ually ascended to the mid-thigh by January, 1929. In November, 1928, he began to have trouble in walking and still more trouble standing still, because of staggering. He felt as if he wanted to back up. This trouble increased up to the date of his admission to the hospital but he is still able to walk alone. In January, 1929, he first noticed weakness and numbness in the hands when milking. This became impossible by April, 1929. He can still feed himself and write. Wasting of the legs and hands developed along with the weakness. There had been considerable sharp jumping pain in the legs especially marked after sunset. His weight had fallen from 160 to 121 pounds and then risen to 151 pounds. The bowels and bladder, talking and swallowing had remained normal. For a year past there had been difficulty in whistling and in drinking.

He was admitted to the hospital January 6, 1930, complaining of weakness, numbness and wasting in the hands and legs; stabbing pains in his legs, hands and forearms; difficulty in walking and loss in weight. Physical examination showed: (1) flaccid atrophic weakness below the elbows and knees; (2) loss of deep reflexes; (3) one plus Fröhlich syndrome; (4) variable sensory loss below the knees and elbows; (5) marked weakness of the facial, neck and abdominal muscles; (6) quantitative reductions of electrical reactions over the weak and atrophic muscles but no qualitative changes; and (7) no fibrillary twitching. During his admission, patient felt he had made considerable improvement. The pain had disappeared and the objective sensory loss had entirely cleared up. Biopsy of the excised portion of the rectus abdominus showed only a slight increase in fat between the muscle fibers.

Diagnosis: The history suggested a chronic polyneuritis because of the peripheral distribution of numbness, pain, weakness and wasting of the stocking and glove type. The rapid clearing up of the sensory loss made a neuritic lesion unlikely and an anterior horn lesion most likely in spite of the absence of fibrillary twitching. Although the patient never complained of any disturbance of the facial, cervical and trunk muscles, some of these were markedly involved in a manner resembling that seen in cases of progressive muscular dystrophy. Considering the case as a whole, it is probable that there are primary changes both in the muscles and spinal cord and perhaps in the peripheral nerves.

Oppenheim, in particular, has referred to transitional or mixed forms of progressive muscular atrophy and has been very free to admit difficulties in the diagnosis between the different types.

TREATMENT OF OSTEOGENIC SARCOMA OF LONG BONES

W. H. GIBBON, M.D.

From the Department of Roentgenology

The opinion is more or less unanimous that so-called "five year cures" in the treatment of primary malignant bone tumors are of the rarest occurrence. Codman wrote in 1922, after reviewing 452 cases in the registry, that, "We know of only four cases of true bone sarcoma which are alive in this country today, who were treated over five years ago." Again in 1926 Codman was able to report seventeen cases of "five year cures." However, he considered the evidence of only a few of these as being entirely convincing. Many investigators, notably Bloodgood, Coley and Eissing, have considered irradiation of little or no benefit in the treatment of these cases and have advocated amputation at the earliest possible time.

The question naturally arises as to the cause of this almost unanimous condemnation of radiation therapy. It must be remembered that the whole field of radiation is still in its infancy and that it is only within the last few years that radiation therapy has begun to emerge from the experimental stage of its development. Doses of X-ray as administered a few years back were too light to be of much therapeutic value.

Kolodny, in his monograph on bone sarcoma in 1927, has the following to say in regard to radiation therapy: "Thus radiation is as disappointing as radical surgery . . . however, when we learn more about the biology of radiation and acquire the same skill in administering radiation therapy, as we possess in using the scalpel, we may hope for far better results from radiation." He goes on to say: "At first glance it is strange that, although the experience of radical surgery has been disappointing it has until recently dominated all therapeutic considerations in bone sarcoma." And it is a widely accepted theory that no time should be wasted in preliminary radiation in every operable bone sarcoma.

Contrary to that general belief, a somewhat different attitude toward operable bone sarcoma has held sway at this institution. Thanks to Drs. Rowan and Beye of the surgical staff it has been possible to give rather intensive irradiation to these primary bone malignancies, preliminary to amputation. The theory for such a procedure is as follows: That there is a general non-specific immunization of the body due to protein destruction or some such phenomenon following irradiation. After sufficient time has elapsed and that



Figures I and II. Before and after treatment. Irradiation had no effect on growth other than alleviation of pain.

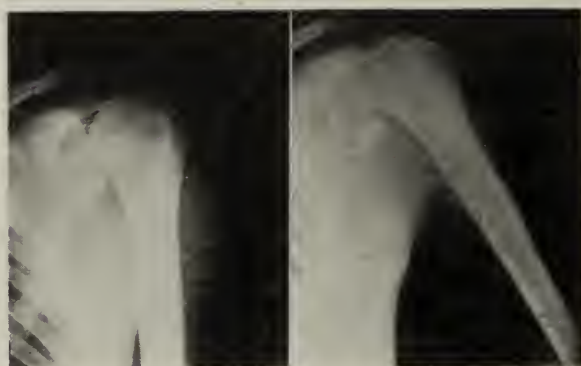


Figure III. Before and after treatment. Note marked regression and almost total disappearance of tumor after irradiation.



Figure IV. No evidence of recurrence nor metastasis after an elapsed time of six years.



Figure V. Recurrence of sarcoma in stump of amputated leg. Death ten months after recurrence.



Figure VI. No evidence of recurrence nor metastasis after an elapsed time of three years.

Roentgenologic findings in a few of the cases in this series of proven osteogenic sarcoma.

state of growth restraint can no longer be maintained the extremity is amputated, thus removing the primary lesion. It goes without saying of course that the grounds for such an assumption are inadequately established, though there has been much work done by numerous investigators based on chemical changes caused by irradiation. While such investigation may be laying the foundation for the eventual solution, yet to date the action of X-rays upon cell structures has not been explained, either by physics or chemistry. However, in presenting this series of eleven cases, plus a consideration of the series reported in 1925, the results, from a clinical standpoint of view, are encouraging, to say the least.

Dr. Kolodny reported in 1925, a series of twenty-five cases of primary tumors of the long bones taken from the records of the State University Hospital. This covered a period of ten years, 1915 to 1925. Of the twenty-five cases, eighteen were osteogenic sarcoma, one was an encapsulated fibro-sarcoma, and six were giant cell tumors. For that five year period dating from May, 1925, to April 15, 1930, we wish to present a second series of eleven cases of osteogenic sarcoma, with a brief follow-up report of the eighteen cases originally reported. We have confined this series to the long bones for two reasons chiefly—roentgenologic findings in a tumor of the long tubular bones are easier to interpret, and the surgical problems are far different from those of other bones of the skeleton.

A brief analysis of both series taken as an aggregate of twenty-nine cases reveals the following:

1. Average age for the entire series is twenty years.
Average age for the present series is seventeen years, and all occurring within the age limits of ten to twenty-five years.
2. Fifteen of the twenty-nine cases, or about 55 per cent gave a definite history of trauma as the initial incident that ushered in the subsequent change of events.
3. Eighteen of the twenty-nine extremities involved were amputated, eleven were not. Eighteen of the twenty-nine received X-ray therapy, and eleven did not.
4. The average duration of life after onset of symptoms in the eleven non-radiated cases was twenty-one months, and all are dead.

In the eighteen radiated cases the average duration of life after onset of symptoms was thirty-two months, and eight are still living.

The above average of the irradiated cases is no doubt considerably lower, as three of the cases are of recent history, and the length of time elapsed since the onset of symptoms is somewhat less than the average in the non-radiated cases.

Time does not allow us to go into the details of the amount of irradiation given each case, nor to permit a discussion of the factors involved in the individual patient. In general, it has been our aim to give 110 to 125 per cent skin erythema doses, divided up into five days, through two portals of entry, one anterior and one posterior. We use 180 K.V. with a .56 mm. cu, 1.0 mm. of Al. filtration, at a distance of 50 cms. and 5 M.A. This is repeated every six weeks or oftener, according to the case, until the tumor shows signs of getting beyond our control, as evidenced by the amount of growth restraint and freedom from pain. About 50 per cent skin erythema doses to the chest, front and back, are given at the same time.

There is one feature that should not be overlooked in passing, and that is the palliative effects of irradiation. Invariably there is almost an entire disappearance of that deep-seated excruciating pain so constantly present in this type of malignancy. This undoubtedly improves the mental status of both the patient and the interested friends and relatives. It promotes a better understanding between surgeon and patient, and makes them more amenable to accept treatment. The reason for this alleviation of pain is unknown, although Borak considers it a genuine therapeutic action.

CONCLUSIONS

1. Roentgen-ray therapy is of distinct value in the treatment of osteogenic sarcoma, preliminary to surgical removal, as evidenced by the definite prolongation of life in the irradiated cases over the non-irradiated cases.

2. "Five year cures" are possible, even when metastases are present, as illustrated by one of our cases.

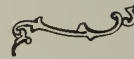
FREE MOTION PICTURES

At the American Fair to be held in the Atlantic City auditorium July 17th to August 27th, a special feature will be the introduction of the first industrial motion picture theater in the world, to be established and operated without profit or admission fee. Films will be shown daily, demonstrating methods of life saving, first aid, public health, industrial housing, etc. This exhibition should be of great value in disseminating information, since it is estimated that at least one and one-half million persons will visit the Fair.

STATE HEALTH COMMISSIONER'S PAGE



D. C. Strickland, M.D.



The most prevalent diseases for the past month were measles, smallpox, scarlet fever, chickenpox and mumps in the order named.

MEASLES

The 1561 cases of measles reported last month added to the 7846 cases reported since the first of the year make a total of 9407. This is 7090 cases more than the number for 1929 and only 563 less than the number for 1927 which was the last "measles year."

SMALLPOX

Four hundred and twenty-nine cases of smallpox were reported, an increase of 247 over those reported for the same month last year. During every month of this year smallpox has shown an increase over the monthly figures of the last seven years. The total for 1930 thus far is 2161 which is 848 cases more than the highest figures for the first five months of the seven year period. Fortunately the cases are mild but an unvaccinated community is always open to an invasion of the severe type.

SCARLET FEVER

Two hundred and fifty-one less cases of scarlet fever were reported than for the same month last year. This year the figure is 248. Like smallpox, scarlet fever as seen in Iowa is mild. However, a relatively large number of cases results in complications such as otitis media and cervical adenitis.

CHICKENPOX

Two hundred and twenty-seven cases of chickenpox were reported for the month or a total of 1238 cases for the five months period. This is a 36 per cent increase over the number for last year.

MUMPS

One hundred and thirty-six cases of mumps were reported. This is 129 less than for the same month of 1929 and 1072 less for the five months period.

TYPHOID FEVER

There has been a 59 per cent reduction in the number of cases of typhoid fever reported for

the first five months of 1930 as compared with the same period of 1929; 17 cases as compared with 41. Only one case was reported last month.

UNDULANT FEVER

Thirteen cases of undulant fever were reported.

EPIDEMIOLOGICAL INVESTIGATION

Four field investigations were made by the epidemiologist, one in central Iowa, one in north-eastern Iowa and two in southern Iowa.

One was made for scarlet fever and smallpox in the same town, two were made for smallpox and one for scarlet fever. The last was made necessary by a difference of opinion as to whether scarlet fever could occur twice in the same patient.

CERTAIN DISEASES CAN BE CONTROLLED

There are four of the common communicable diseases that may be prevented or at least reduced materially by preventive measures. These are diphtheria, smallpox, scarlet fever and typhoid. In 1929 there were reported 397 cases of diphtheria, 4315 cases of scarlet fever, 288 cases of typhoid, 1913 cases of smallpox. The combined time lost during 1929 from these four diseases from quarantine alone exceeds more than 512 years for one person or one year each for more than five people for every county in Iowa.

To this loss of time add 34 deaths from diphtheria, 56 from scarlet fever, 59 from typhoid, and 5 from smallpox or a total of 154 deaths from these four preventable diseases, add the extra expense of the sickness to the families afflicted and we find the damage done our people in one year would more than pay the cost of immunizing every susceptible in Iowa.

BUILDING PROGRAM FOR THE BALTIMORE CITY HOSPITALS

The new \$2,500,000 building program for the Baltimore City Hospitals has been approved. Some of the plans are as follows: to use the existing main building as an infirmary; to erect a \$450,000 nurses' home; to build a tuberculosis ward costing \$220,000; to construct several hospital buildings, including accident and psychopathic wards, to cost \$1,500,000.

The JOURNAL of the Iowa State Medical Society

ISSUED MONTHLY

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THE DETROIT SESSION

The eighty-first annual session of the American Medical Association has just come to an end. To many, the annual meeting is just another outing where old friendships are renewed and new contacts established; where one listens to a limited number of scientific papers and spends much time at dinners or golf. Regardless, however, of one's viewpoint, the fact remains that in its executive function the annual session of the A. M. A. is the outstanding influence in establishing the policies and shaping the destinies of the medical profession which operates in this country. To those not privileged to sit in the executive sessions of the Association, recourse should be had to the published transactions and addresses, so that they may be familiar with the trend of the times. Every physician should feel an active interest in those matters, since they will affect in many instances not only his purse, but also his happiness.

At the Detroit session much was said relative to the gravitation of medical practice toward state medicine, socialized medicine and other forms of paternalism. It would appear that in the opinion of the leaders, this trend in practice offers the greatest menace to the practice of medicine today.

The retiring president of the Association, Dr. Malcom L. Harris, of Chicago, sounded a warning against the socialization of medicine in sponsoring a resolution creating a permanent Bureau on Medical Economics with a full time secretary. This bureau will conduct systematic investigations into all problems of an economic nature affecting the medical profession. Dr. Harris discussed the practice of medicine in Europe, detailing those practices in England, Belgium and Germany, particularly, which illustrates the pa-

ternalistic influence of the government or other organized agency toward the practice of medicine. In these countries in many instances organizations have been authorized or perfected to place the activities of the physician entirely under governmental control. In England the formation of the Public Medical Service Association is such an effort on the part of the government to establish a universal medical service, fully controlled by the government, and available to every citizen, whether able to pay a fee or not. The physician under such a system is a salaried employee of the state.

As a corollary to Dr. Harris' discussion of socialized medicine, the discussion of paternalistic tendencies in medical practice by Dr. William Gerry Morgan, incoming president from Washington, was particularly fitting. Dr. Morgan discussed the tendency toward a system through which the government, federal, state or municipal, undertakes to regulate the activities of the individuals who constitute such a political body, even to the point of selecting and paying a physician for the individual's care during illness. He cited compulsory sickness insurance as advocated by the International Labor Bureau of the League of Nations as reported in their transactions for 1927. This action is based upon a conception that "the modern state, as guardian of public health and national prosperity, considers it both a right and a duty to impose compulsion" in accomplishing the ends of sickness insurance.

In connection with his advocacy of the American Medical Association taking over the standardization of hospitals, Dr. Morgan drew attention to the activities of many non-professional organizations in conducting hospitals, clinics and dispensaries for medical or pseudo-medical reasons in which the time of a medical staff is exploited by the organization. In hospitals equipped by taxation in any form, an executive board may establish any policy which they may wish relative to free bed service, or part or full pay bed service, but unless the medical staff is a full time salaried one, they should not be permitted to dictate the activities of the medical staff in the assessing or collection of fees for professional services.

In the combatting or the correction of these evils, these speakers heartily agreed with Secretary Olin West's thought that "the need for unified action and authoritative expression through truly representative channels" and the more "militant spirit" in dealing with opposing forces is paramount. Dr. Harris advocates the establishment of medical centers owned, controlled and

operated by groups of physicians or societies which would provide the indigent with medical care without cost, while others would be charged fees commensurate with their financial ability. A wide application of such a system of clinics would largely remove the need for governmental control and in its place would leave the control where it properly belongs, in the hands of the physician. Dr. Morgan suggests and urges that every physician weigh carefully the nature of an appointment to a hospital staff, requiring that such a hospital maintain a rigid policy of non-pater-nalism in so far as the medical practice is concerned. Unless such an attitude is assured, the physician should take both his services and his patients to another institution of better ideals.

In summary, then, it would appear that two fundamental problems in medical practice—unity and professional independence—furnished the keynotes for the addresses of the executive officers of the A. M. A. at its Detroit session.

A NEW CASE AGAINST BAKER

"Though the mills of the gods grind slowly, yet they grind exceeding small."

In an editorial appearing in last month's Journal, it was announced that the initial effort of the State of Iowa to close the Baker Institute at Muscatine by temporary injunction had been ineffective, since Judge A. P. Barker of the Muscatine County District Court had ruled that such an injunction was in violation of certain chapters of the 1927 code. Following this decision, the Attorney General promptly filed a petition for a permanent injunction against the personnel of the Baker Institute, naming especially Norman Baker, Harry M. Hoxsey, Charles Gearing, Mary Turner, and Myrtle Gersham. This petition alleged that the defendants were practising medicine without license from the State in open violation of the code requiring all practitioners of the healing art to be duly examined and licensed by legally appointed boards. Attorneys for Baker asked for a dismissal on technicalities, stating that the petition is attempting "to join separate causes of action against divers persons"; that the plaintiff in such action should be the commissioner of public health; and finally that the Attorney General of the State is not empowered to bring suit except in civil action in a court of equity.

On June 26th, the motion filed by Baker for a dismissal of the case was granted by Judge D. V. Jackson on the grounds that "the defendants were wrongfully joined." Up to this time, however, no consideration has been given to the issue involved in the case, namely, whether or

not Baker and his associates are practising medicine within the State of Iowa without a license as alleged. In view of this fact, the State of Iowa filed an amended and substituted petition in the Muscatine County District Court on July 2nd charging that Norman Baker, owner of the Baker Institute, is practising medicine without a license. A date for the hearing of this new petition has not yet been set. It is believed by those familiar with the details of this case, that little difficulty will be experienced in securing the conviction of Baker on the grounds indicated, if the case can be brought to actual trial.

THE ETHER IS PURIFIED

During the past month, the Federal Radio Commission has refused to continue the license of two radio stations—KVEP of Portland, Oregon, and KFKB of Milford, Kansas. The Portland station was closed since it was proved that they had permitted the "consistent use of indecent, profane and objectionable language" to enter into their broadcast. In the case of the Milford station, it was shown that Brinkley was using this broadcast to further quackery and solely for personal gain. Commenting upon the latter case, Commissioner Ira A. Robinson is reported to have said:

"There are 120 million people in this country and it is possible to have only eighty-nine radio channels for communication. With them though the air, therefore in the interest of all the people, it is imperative that each radio broadcasting station shall be operated in the public interest and not to increase the private revenue of a hospital or a doctor or to build up a private school of medicine.

"Remarking that he owned a stock farm in West Virginia, he expressed doubt that he could secure a radio license to advertise his livestock.

"If we give Brinkley a license to operate a radio station, then must we give a license to Lydia Pinkham and others" he asked.

Divested of his license to practice medicine in Kansas, denied the privilege of radio broadcast, and prohibited by postal laws from the use of the mails in promulgating his quackery, Brinkley is doomed. Kansas has cleared her name.

Although several rumors have intimated that the Federal Radio Commission was planning an investigation of Norman Baker's radio station at Muscatine, Iowa, no authenticated report of this nature has, to our knowledge, been made. Major General Charles Saltzman, Chairman of the Commission has been quoted by the Associated Press as stating that "the Commission has not consid-

PRESIDENT'S MESSAGE

SPEAKERS BUREAU

One activity of the State Medical Society receiving special attention is the Speakers Bureau. It is expected that one hundred fifty speakers will be listed soon. These speakers will be available for county medical societies and lay audiences. Women's clubs, service clubs, parent-teachers associations, etc., may be supplied with speakers by communicating with the office of the State Medical Society at Des Moines. It is hoped that county medical societies will avail themselves of the privileges of this Speakers Bureau. This should be a means of keeping up interest and assisting in getting worth while programs. Another advantage will be that "pinch hitters" can be supplied as the need arises.

Speakers for lay audiences are not expected to deliver lectures in their own communities, but will be sent to other towns and counties. This project is purely one of service and not a means of personal advertising or profit.

Subjects of general medical interest are to be presented to lay audiences to keep alive real interest in scientific and preventive medicine. This campaign is not directed against medical fakes, fads or fancies, but rather to present in an interesting and entertaining manner medical facts. Biographies of prominent medical men and discussions of their contributions to medical science and humanity are matters of public interest. The story of yellow fever and its practical eradication through the service and sacrifice of Dr. Reed and his associates, and the great work of Dr. Gorgas and others, are stories of intense interest and are reminders of how much humanity owes to scientific medicine. Other subjects that can be made interesting and practical are those of malaria, diphtheria, insulin, antivenin, etc.

These subjects are only suggestions. Many others have been prepared by the speakers who are ready to render their service on call.

Much benefit is expected from this enterprise. The educational efforts during the last two years have proved of great practical value. This phase of the work should be continued. This service will, in a measure at least, overcome the false, pernicious and sensational misinformation sent out in printed form and through agencies employed by those who prey on the ignorance and superstition of suffering humanity for the purpose of financial gain.

The Illinois State Medical Society last year spent almost as much for this sort of work as we allow for our whole budget, exclusive of the self-supporting Journal. This is an educational age. Dailies, weeklies and monthlies constantly publish articles relative to health matters, new discoveries, proved and otherwise (more often otherwise) showing there is a demand for medical knowledge. The most satisfactory way of effectively presenting information concerning medical subjects to lay audiences in our opinion is through a well conducted Speakers Bureau.

W. A. Rohe

ered taking any action against broadcasting station KTNT."

(The Hawk—Burlington, Iowa, June 15, 1930)

Having established precedents in closing the Portland station for indecency and the Milford station for fraudulent and unsupportable claims, it would seem that the way is becoming much more open for the needed consideration of charges against station KTNT of Muscatine by the Federal Radio Commission.

The Journal of the Iowa State Medical Society commends the Radio Commission for taking the necessary steps which public decency demands in suppressing objectionable radio broadcasting. Since the radio flows into thousands of homes, that which is objectionable and indecent, must be eliminated and those who persist in using a public privilege, sanctioned and franchised by the Federal Government, to intimidate, to mislead and to "fleece" the uninitiated for their own financial gain, must in all fairness be denied the further opportunity of profaning such a far-reaching privilege.

THE IOWA STATE MEDICAL LIBRARY

Dr. David S. Fairchild of Clinton, whose death was recorded in the March issue of the Journal, wished the Iowa State Medical Library to receive his entire library. Agreeable to this wish the 1500 medical books, and hundreds of unbound Medical Journals constituting this library are now arranged in an alcove—The Fairchild Alcove—at the Historical Building, in Des Moines, and are accessible to any physician in the state. This magnificent gift places a very large and important group of medical books at the disposal of the profession which in many instances could not be duplicated. Since many of the volumes in this collection were obtained by Dr. Fairchild in connection with his long and valued service to the State Society as Editor of the Journal, it seems fitting that his successors should augment this collection by surplus volumes which they may acquire. It is the purpose of the Editor of the Journal to follow such a course and we have been assured that such a program will be favored by the State Librarian.

Inspired by the vivid presentation of the needs of our library by Librarian Jeannette Dean Throckmorton, the Iowa State Society in session at Marshalltown voted the sum of \$100.00 for five years for the purpose of purchasing rare or historical books for the Medical Library. This action was in harmony with the appeal made to physicians to donate old, rare or unwanted medical books or instruments so that the historical value of the library be furthered and a Medical Museum

of historical value be created. The response of the profession to Dr. Throckmorton's appeal is reflected in the following list:

J. W. Tyrrell, 75 books, and 3 old rare ones (belonging to his grandfather.)

O. J. Fay, 70 books, 180 journals, hundreds of reprints.

Iowa State Medical Society, 30 journals and 35 reprints.

W. L. Bierring, 10 books, framed picture of Sir William Olsler and himself.

C. E. Ruth, 200 books, 1 by Sir Astley Cooper, (rare).

David M. Blum, 2 old books, several journals.

A. C. Conaway, of Marshalltown, 172 books.

W. A. Sternberg, of Mt. Pleasant, two old and valuable books.

Miss Maude Sutton, 10 books on nursing.

Corwin S. Cornell, Knoxville, Iowa, sent a box of many old and rare instruments belonging to his father and grandfather. These were exhibited at the Diamond Jubilee meeting of the Iowa State Medical Society.

Dr. W. A. Rohlf, President of the Iowa State Medical Society, sent a box of valuable old instruments as a gift to the State Medical Library. Among these were two handmade specula made for Dr. Oscar Burbank, formerly of Waverly (graduate Harvard Medical College in 1848) who successfully did the operation for vesicovaginal fistula about the time that J. Marion Sims did his historic operation. Other instruments of Dr. Burbank's had handles made from the bones of his first horse.

These instruments, with others from Dr. Rohlf, Dr. Thomas Powers, Dr. George Moorhead and Dr. Fairchild, will soon be on display in a glass-topped table at the State Medical Library in the Historical Building.

HOW HONEST ARE IOWA PHYSICIANS?

It frequently comes to our attention that "the physician is the first to be remembered in sickness and the last to be remembered in health." Doctors, as a rule, feel that their patients become negligent and frequently postpone the retirement of doctor bills because of sheer dishonesty and ingratitude. No doubt this condition does exist and reflects very unfavorably upon the integrity of any community in which it is prevalent.

However, there is another angle to the problem. It sometimes occurs that the physician is remiss in his attitude towards legitimate obligations. Only recently, it has come indirectly to our attention that the medical profession of Iowa was circularized concerning the sale of a small diabetic

manual entitled, "Us Diabetics."* The author-publisher of this book, Dr. Don H. Duffie, authorized his agent to mail a copy of the book on approval, to any physician in Iowa who signed and returned a request card which was included with his circular. Iowa happened to be chosen for trying this plan. A fair response was accorded this offer but surprising as it may seem, in three-fourths of the instances the physician so trusted failed to return the book and also failed to mail the publisher his check for \$1.50 as promised. Replying to our investigation of the matter, Dr. Duffie states that "after four sets of statements and two personal letters to each delinquent, we managed to collect from all *but about thirty per cent.*" (*Italics ours.*) The same plan tried in another state disclosed six per cent delinquent.

Bear in mind that these books were not sent except where the physician signed and mailed the "sent on approval" card. Can we draw a conclusion other than the obvious,—namely that thirty per cent of Iowa physicians ordering books on approval are as remiss in meeting just obligations as "negligent" patients. Are we willing to accept this showing as a true index of the Iowa physician's honesty? Certainly such indifference in meeting a responsibility does not place the members of our profession in a favorable light. Can we logically condemn negligence in others until our own door-step is a little more immaculate?

*An impression of "Us Diabetics" will be found in the "Books Reviewed" section of this issue of the Journal.—Editor.

PHYSICIANS WIN IN PRIMARIES

Reports have come to the state office of the nomination of several members of the Iowa State Medical Society in the June primaries. Dr. W. E. Long of Mason City was nominated on the Republican ticket for representative from Cerro Gordo county. The voters in Taylor County placed the name of Dr. L. T. Reed of Gravity on the Republican ticket for representative. Dr. B. B. Leonard of Anthon received the republican nomination for supervisor in Woodbury County.

ERSKINE ELECTED TO A. M. A. SECTION CHAIRMANSHIP

A signal honor was conferred upon the Iowa State Medical Society recently when Dr. Arthur W. Erskine of Cedar Rapids, was elected Chairman of the Section on Radiology of the American Medical Association at the annual meeting held in Detroit, June 23 to 27.

TO BUY HAPPINESS

Somewhere in the vaults of the Lower Manhattan financial district there lies a fund of \$10,000,000 which can be spent only to buy happiness for mankind. Al-

though the money, set aside under special provisions in the will of the late C. Harold Smith, of New York, has been available for months, it is still unspent because a brand of happiness worth ten millions of dollars has not yet been found. More than 100,000 persons have offered suggestions as to how the money could be spent for the best interests of mankind. From these the best were selected as prize winners, but guardians of the fund are still undecided whether or not they have found the most advantageous way in which to dispose of it.

The winning idea was that of Professor Henry E. Garrett, of Columbia University. His proposal is to "stem the rising tide of mental ill health, which bids fair to engulf us in the next few generations." He would like to see an institute with a staff composed of physicians, psychiatrists, psychologists, and social workers. It would foster research about the nervous and mental diseases of which so little is known, would give courses in mental hygiene and would give practical advice and guidance, particularly to parents of children who are truants, delinquents, and otherwise maladjusted. Despite the fact that the Garrett suggestion was awarded the prize, it is not yet determined whether or not the institute he outlines will be established.

MORTALITY AMONG ESKIMOS

It has been estimated that there are only about 300 Eskimos in the Arctic Coast territory, from the Alaska-Yukon boundary to the Anderson River, a distance of about 360 miles. This is due to the high death rate of Eskimos in this region, says a recent bulletin of the Canadian Department of the Interior. These Eskimos have changed their habits within the past fifteen years, because of the establishment of trading posts across Canada along the Arctic sea-coast. In earlier times they were a migratory people, who followed the sea. With the coming of modern commerce, however, the fur of the white fox has been highly prized and the hunting of this animal became the dominant industry. In exchange for these furs, the Eskimos receive rifles, ammunition, power boats, gasoline, imported clothing, and such foodstuffs as bread, jam, tea, and canned goods. The low food value of some of these foods, the unhealthy clothing adopted by the Eskimos, coupled with the contagious diseases which follow civilization, have resulted in this high mortality.

THE COUNTRY DOCTOR

Dr. Clarence F. Kendall, commissioner of health for the state of Maine, has pointed out that 226 small towns and 65 organized plantations in the state have no resident physician; there is an average of one physician for 916 inhabitants. The majority of the physicians are over 50 years of age. To provide more adequate medical service for the present and the future, many of the physicianless towns are offering bonuses, ranging from \$500 to \$3,500 to young physicians who will settle and take up the rural practice.

Minutes of the Iowa State Medical Society Seventy-Ninth Annual Session May 14, 15, 16, 1930—Marshalltown

Wednesday Morning Session, May 14, 1930

The opening session of the Seventy-Ninth Annual Session of the Iowa State Medical Society, held at Memorial Coliseum, Marshalltown, Iowa, May 14-16, 1930, convened at eight twenty-five o'clock, President John Hyren Peck, Des Moines, presiding.

Reverend Willis K. Williams, Pastor of the First Congregational Church, Marshalltown, delivered the invocation.

The address of welcome for the city was given by Dr. Aaron C. Conaway, Mayor of Marshalltown. Dr. Arthur D. Woods, President of the Marshall County Medical Society, then gave the address of welcome for the profession.

A medical clinic was conducted by Dr. O. H. Perry Pepper, Philadelphia.

Dr. Temple Fay, Philadelphia, conducted a surgical clinic.

The following papers were read and discussed:

"The Trend of Modern Obstetrics," by Dr. William E. Brown, Cedar Rapids. Discussed by Dr. Charles H. Magee, Burlington, and Dr. Brown closed the discussion.

"Indications for Treatment in Abortions," by Dr. Henry C. Hesseltine, Iowa City. Discussed by Drs. Ben G. Budge, Ames; Ralph E. Keyser, Marshalltown; William Jepson, Sioux City, and W. W. Bowen, Fort Dodge. Dr. Hesseltine closed the discussion.

"Acrodynia," by Dr. A. Fred Watts, Creston. Discussed by Drs. Roland W. Stahr, Fort Dodge; John F. Herrick, Ottumwa; Temple Fay, Philadelphia; W. E. Scott, Adel, and closed by Dr. Watts.

"The Neglected Neuropath," by Dr. Lee R. Woodward, Mason City. No discussion.

The meeting adjourned at twelve-ten o'clock.

Wednesday Afternoon Session, May 14, 1930

The meeting was called to order at one-thirty o'clock by President Peck.

Dr. Walter L. Bierring, Des Moines, introduced Dr. O. H. Perry Pepper of Philadelphia who read an address on "The Internist's Responsibility for the Fruitless Laparotomy."

In the Symposium on Fractures the following papers were presented:

"Fractures of the Foot and Ankle," by Dr. Clarence O. Epley, Spirit Lake.

"Fractures of the Knee," by Dr. W. Eugene Wolcott, Des Moines.

"Fractures of the Hip," by Dr. Fred L. Knowles, Fort Dodge.

"Fractures of the Hand and Wrist," by Dr. John A. Cahill, Volga.

"Fractures of the Elbow," by Dr. Peter A. Bendixen, Davenport.

"Fractures of the Shoulder," by Dr. Charles A. Katherman, Sioux City.

A general résumé of the Symposium was given by Dr. Charles W. Hopkins, Chief Surgeon, Chicago and Northwestern Railroad, Chicago.

The meeting adjourned at five o'clock.

Wednesday Evening Session, May 14, 1930

This meeting was held at the Elks Club and was called to order at eight o'clock by President Peck.

Dr. George Francis Suker, Chicago, gave an address entitled "Thyroid Dyscrasies in Relation to Eye Diseases."

An address on "What Minnesota Is Doing," was given by Dr. Samuel H. Boyer, Duluth. This was discussed by Dr. Edward A. Meyerding, St. Paul, and Mr. Manley H. Brist, St. Paul, and closed by Dr. Boyer.

A buffet luncheon and smoker followed the program.

Thursday Morning Session, May 15, 1930

The meeting was called to order at eight thirty-five o'clock by President Peck.

Dr. Temple Fay, Philadelphia, conducted a surgical clinic.

A medical clinic was conducted by Dr. O. H. Perry Pepper, Philadelphia.

The following papers were presented and discussed:

"The Obstructing Prostate," by Dr. William R. Hornaday, Des Moines. Discussed by Dr. Ralph E. Keyser, Marshalltown. No closing discussion.

"Prolonged Bed Rest in Tuberculosis," by Dr. Charles F. Taylor, Norton, Kansas, formerly of Oakdale, Iowa. Discussed by Dr. Edward T. Edgerly, Ottumwa. No closing discussion.

"The Role of Surgery in the Treatment of Pulmonary Tuberculosis," by Dr. J. Dewey Bisgard, Harlan. Discussed by Dr. Frank W. Fordyce, Des Moines. No closing discussion.

Dr. Edward M. Myers, Boone, gave an address entitled "The Converging Trend of Medicine and Surgery."

The meeting adjourned at twelve-ten o'clock.

Thursday Afternoon Session, May 15, 1930

The meeting was called to order at one forty-five o'clock by President Peck.

Dr. Temple Fay, Philadelphia, presented an address entitled "Acute Cerebral Hydration States: Their Management by Dehydration, with Especial Reference to Epilepsy and Cerebral Trauma."

The following papers were presented and discussed:

"Hereditary Hypertension," by Dr. Daniel J.

Glomset, Des Moines. Discussed by Dr. John F. Ritter, Maquoketa, and closed by the essayist.

"Coronary Diseases," by Dr. Herbert W. Rathe, Waverly. Discussed by Drs. John I. Marker, Davenport; Walter L. Bierring, Des Moines, and Fred M. Smith, Iowa City. Dr. Rathe closed the discussion on his paper.

"Cardiac Therapy," by Dr. Fred M. Smith, Iowa City. Discussed by Drs. Walter L. Bierring, Des Moines; Granville N. Ryan, Des Moines, and Donald Macrae, Jr., Council Bluffs. No closing discussion.

"The Cancer Problem," by Dr. Albert V. Hennessy, Council Bluffs. Discussed by Drs. William Jepson, Sioux City; W. E. Sanders, Des Moines, and closed by the essayist.

"Radiation in Pelvic Disease," by Dr. John F. Herrick, Ottumwa. Discussed by Dr. Arthur W. Erskine, Cedar Rapids. No closing discussion.

The meeting adjourned at five-fifty o'clock.

Thursday Evening Session, May 15, 1930

At six-thirty the members of the Society and honored guests assembled in the Memorial Coliseum for the seventy-ninth annual dinner over which Dr. Gordon F. Harkness presided as toastmaster.

Friday Morning Session, May 16, 1930

The meeting was called to order at eight-forty o'clock by Vice-President William W. Bowen, Fort Dodge.

A pediatric clinic was conducted by Dr. Robert H. McBride, Sioux City.

Dr. Charles J. Rowan, Iowa City, being unable to procure patients for his surgical clinic, presented case histories.

Dr. Eli Grimes, Des Moines, read a paper on "Methods in Diagnosis." Discussed by Dr. George B. Crow, Burlington, and Dr. Frank M. Fuller, Keokuk. No closing discussion.

Dr. Donald C. Conzett, Dubuque, read a paper on "Intestinal Obstruction." Dr. Robert H. Crawford, Algona, who was scheduled to open the discussion was unable to be present. The paper was discussed by Drs. Emil C. Junger, Soldier; Tom B. Throckmorton, Des Moines, and William Gerry Morgan, Washington, D. C. No closing discussion.

Dr. William Gerry Morgan, President-Elect of the American Medical Association, Washington, D. C., read an address on "Functional Diseases of the Alimentary Tract."

Secretary Throckmorton: Mr. President, I move that a rising vote of thanks be extended to Dr. William Gerry Morgan, President-Elect of the American Medical Association, as an evidence of the Society's appreciation for his presence on this occasion and representing formally, by his scientific presentation, the first appearance of one who represents that high office in our national body, on our scientific program, and to assure him that when he becomes President of the American Medical Association he will ever find the Iowa profession behind him in any task he may undertake in furthering the upbuilding of American medicine.

The audience arose and applauded.

President Peck: We are very grateful to you, Dr. Morgan.

At the time the program was prepared it had been planned to have the final session of the House of Delegates on Friday afternoon. We had such a busy day on Tuesday and got so much accomplished, it was found possible to have an early meeting this morning and we have completed our labors. So at this time we will have the report of the transactions of the House of Delegates by Secretary Throckmorton.

Secretary Throckmorton: Mr. Chairman and Members of the General Session: The first meeting of the House of Delegates occurred Tuesday afternoon at two o'clock, and we had present at that time sixty-three members.

Through the foresightedness of President Peck, a Handbook containing the reports of the various officers and committees had been sent out and was in the hands of all the officers and delegates and alternates, with the exception of the report by the Secretary and Treasurer. Owing to the fact that the fiscal year of the Society's affairs did not terminate until the first of May, it was impossible for either the Secretary or the Treasurer to have his report included in the Handbook.

The result was that the routine procedure of receiving the committees' reports and disposing of same cut down very materially the amount of time heretofore consumed.

I presume that perhaps one of the most important things which came before the House of Delegates for consideration this year was the proposed constitutional amendments. This matter was very nicely disposed of at the evening meeting, in that the amendments at this time were not adopted. I might say at this point that the thing which I am sure the proponent and the adherents had in mind at the time the amendments were proposed last year was identical with what the members of the Committee on Constitution and By-Laws would have this Society do, namely, the bringing about of the redistricting of the state, and in that way instituting, perhaps, more activity among the members of the Council. I have no doubt but that some time, and I trust in the near future, this matter will be proposed in such a way that after a very careful and scientific study of the whole problem is made, some committee will bring in such a report covering this matter and that the same will be adopted by the House.

The Friday morning meeting of the House was represented by fifty-nine officers and delegates. The first order of business, as you know, after roll call was the report of the Nominating Committee. The report of that committee was that the names of Dr. William W. Bowen of Fort Dodge, Dr. Channing Smith of Granger, and Dr. Charles S. Krause of Cedar Rapids be proposed as candidates for the office of President-Elect. After the presentation of the entire list which I will give you in just a moment, the Nominating Committee's report was received, and one ballot taken. Dr. Channing G. Smith

of Granger was elected to the high office of President-Elect of this Society.

For First Vice-President, Raymond S. Grossman of Marshalltown; Second Vice-President, W. R. Brock of Sheldon; Secretary, Robert L. Parker of Des Moines; Treasurer, Edwin B. Winnett of Des Moines.

The vacancies in the Councilor Districts were filled as follows:

First District—Clyde A. Boice, Washington.

Seventh District—Thomas A. Burcham, Des Moines.

Ninth District—Albert V. Hennessy, Council Bluffs.

Eleventh District—William Jepson, Sioux City.

The vacancy in the Seventh District was made possible through the election of Chairman Channing Smith of the Council to the office of President-Elect.

Two Trustees were elected this year. That wonderful, inspiring, aristocratic, presiding officer at the annual banquet last night, in the form and person of Gordon F. Harkness, was elevated to the Board of Trustees. One of the President's right-hand bowers, if you play the game of euchre, was likewise elevated to the office of Trustee, in the person of Edward M. Myers who has been Chairman of the Surgical Section of the general session.

William Jepson, Sioux City, and Donald Macrae, Council Bluffs, were elected as delegates to the A. M. A.

Other members of the standing and special committees were practically returned as we had them at the beginning of the session.

Des Moines was chosen as the next place for our annual session, the dates being May 13, 14 and 15.

I think we have had a very remarkable registration, considering the fact that we were in Marshalltown—not that Marshalltown has been an unfriendly host. I just want to say as a member of the Committee on Arrangements with my good friends, Dr. Peck and Dr. Parker, that I have never known any greater activities to have been taken anywhere than by the men who helped to put across the local arrangements for your welfare, comfort and entertainment here in Marshalltown. But, as you can realize, Des Moines being a little more centrally located, perhaps, in a way, a little better prepared with hotels to accommodate our visitors, we naturally assume that we will have a greater registration there. But here in Marshalltown 660 members have registered, and, as far as I know, not a single kick or objection has fallen upon the ears of any of the members of the Arrangements Committee. We have been blessed with 18 guests and some of the highest representatives of American medicine that you could ask for, and we have had 37 exhibitors, making a grand total of 715 who registered for this Seventy-Ninth Annual Session of the Iowa State Medical Society, which has been conducted in such a fine, harmonious and masterful way by our beloved President, John H. Peck. (Applause.)

President Peck: The session draws to a close. I

am personally appreciative that we have been able to run on schedule all the time. We have tried to give you the very best sort of a program that we could. We hope you liked it. From many expressions of the members I believe that you did enjoy it.

I am personally of the opinion that certain features should be continued. I believe the clinics were of great value. I believe that the caliber of the clinicians we had this year guaranteed their value before we started, but the attendance at eighty-three in the morning at these clinics is sufficient guarantee of their appreciation by the membership of this Society.

I am inclined to believe that the scientific exhibit was likewise enjoyed and appreciated. Certain moves have already been made to continue such a thing next year, if possible.

Another interesting observation is that every essayist on the program was here at his appointed time and gave his paper in a truly satisfactory manner. There were two or three of those who were put on to discuss papers who were compelled to disappoint us, but there was a very excellent attendance for the scientific program. This room, a few times, was just a bit crowded, but it has been a comfortable cozy place to meet. We have been able to hear; we have been able to see; we have had fairly good ventilation. As far as the physical arrangements are concerned, we are very well satisfied that the Marshall County Medical Society has more than done its duty.

I would be truly ungrateful to you if I did not acknowledge again my very great appreciation of the elevation to this office which occurred two years ago at Cedar Rapids. It has been a busy two years because it has come about that the President-Elect does not loaf all the time. He is called upon to visit many county societies. He is called upon to take an ex-officio duty in some of the business affairs of the Society, and properly so. I am sure that the President-Elect needs that year of development, of initiation, of preparation for the greatly increased duties of the office of President. This year has been an enjoyable one; it has been very busy. I have been trying to count up and as near as I can get at it, I have attended sixty medical meetings since the first of January. Now, that is considerable of a sacrifice. I think that should be kept in mind when you are picking men for this office in the future. You must have men who are willing to make the necessary sacrifice to make these official and semi-official visits, because I believe it has had a great deal to do with promoting the solidarity of the profession in the state of Iowa.

I am of the opinion that we are just on the brink of the greatest period of progressive development that the Society has ever known. It has been a very great pleasure and privilege on my part to have had even this small part to do with this development.

As the Secretary intimated in his report of the transactions of the House of Delegates, we are still a united profession. Every man, so far as I know, in the Iowa State Medical Society is pulling for the

good of the Society, and that is as it should be. We have no differences; we have the good of the Society and the welfare of the profession of Iowa at heart, and we are going to see that it is in the very best possible condition.

Therefore, it is with a great deal of confidence at this time that I turn over my participation in the active affairs of this Society to my successor, a man whom I cannot introduce to this Society. He is one of the best known men in the Society. He will make you a great and worthy president. He has the right medical ideals; he has the right aspirations, and he has the desire to give you a greater administration than you have enjoyed this year.

At this time it is my very great privilege to turn over the gavel, the emblem of authority in this State Medical Society, to my very good friend, Dr. William A. Rohlf of Waverly.

The audience arose and applauded as President Rohlf took the chair.

President Rohlf: It is needless for me to say anything about the wonderful success of the last year in the management of the State Medical Society. As I said last night, I feel we are fortunate that the office could inspire Dr. Peck to put in so much of his time and energy and ability to do the work that he has done for us this past year. My own hope is that I may in a measure reach the efficiency that has been shown by Dr. Peck during the past year.

I am not going to make any promises, only this, that I am taking the office in a spirit of seriousness and I shall endeavor with your co-operation and your help to do the best I can.

I am going to ask Dr. Paul Gardner and Dr. Crow to escort the President-Elect to the platform.

The audience arose and applauded as Drs. Gard-

ner and Crow escorted President-Elect Channing G. Smith to the platform.

President-Elect Smith: Mr. President and Members of the State Medical Society: If I were to deny that I am not appreciative of the action of your House of Delegates, it would immediately mark me as a liar and a fool with all the characteristic symptoms of both. I do appreciate this action. I can assure you I am accepting this not as an honor but as a service, that I shall be neither an honor to the Society nor to myself unless I can be of some service to the State Society.

I realize that I have many limitations. You all know that I come from a town of 319 people and 913 dogs. (Laughter.) I have reliable information there will be more dogs when I get home.

The only way I can get by, ladies and gentlemen, is with your support, and I am asking for your support not alone for my year but for the coming year. You may well rest assured that any action I may take during the coming year will be to help carry on the policy and the government of our worthy and loved friend, Bill Rohlf. (Applause.)

President Rohlf: At this time I wish to announce the chairmen of the various sections:

Section on Medicine—Dr. C. B. Luginbuhl, Des Moines.

Section on Surgery—Dr. Roscoe Jepson, Sioux City.

Section on Ophthalmology, Otology, Laryngology and Rhinology—Dr. Harry H. Lamb, Davenport.

That ends this most delightful and successful session. We will adjourn not until next year at this time but until the call of the President which will occur, I presume, some time in the month of November.

The meeting adjourned at eleven-fifty o'clock.

Transactions House of Delegates Iowa State Medical Society, Seventy-Ninth Annual Session May 13, 14, 15, 16, 1930 -- Marshalltown

FIRST MEETING, TUESDAY, MAY 13

The House of Delegates met in the Ballroom, Hotel Tallcorn, Marshalltown, and was called to order at 2:05 P. M. by President Peck.

Roll call showed the presence of 16 officers and 47 delegates, making a total of 63.

The minutes of the Friday morning session held in Des Moines, having been published in the July, 1929, issue of the Journal, were considered to have been given sufficient publicity, and were accordingly held approved as published.

The secretary then rose to a point of personal privilege and asked that he be authorized to send telegrams of greeting to the following Sister State Societies and Associations now in session: Ohio State Medical Association; New Hampshire Medical

Society; Nebraska State Medical Association; Missouri State Medical Association, and the Mississippi State Medical Association. There being no objections, the House granted this privilege.

Reports of Officers

The secretary, Dr. Tom B. Throckmorton, presented his report, which upon motion duly seconded and carried, was accepted and such portions of the same as referred to finances were referred to the Finance Committee.

REPORT OF SECRETARY

To the Members of the House of Delegates of the Iowa State Medical Society:

The following report for the year 1929-1930 is respectfully submitted:

Before entering upon the report proper for the past year, your Secretary feels that it may not be altogether out of place to touch upon some of the changes which have taken place in the affairs of the Society during the past fourteen years and in a way to summarize some of the outstanding accomplishments of the secretary's office during that time.

In 1916 the duties of Secretary were turned over to me, a thoroughly new and untried officer. I realized, very deeply, the responsibility which had been placed on my shoulders, and determined, if possible, to serve the Society and its members honestly, faithfully, and impartially, to the very best of my ability. As to whether or not I have lived up to that resolution must be left to those who have been in close touch with the secretary's office during these years. The physical property of the Society was then represented by an investment of but \$157.20. One stenographer made up the entire office force. A cubby hole stored all the belongings of the office. Card records of membership dated back only to the year 1912. The membership was in round numbers 2200, and at the time of my first annual report in 1917, 2071 members had paid their dues for the current year. The total membership for that year eventually became 2253. The annual dues were \$4.00, which guaranteed to each member medico-legal protection, twelve copies of the Journal, and other privileges afforded by organized medicine.

Then came the World War, which naturally caused a diminution in membership, but the return to normalcy in after years brought with it a steady increase in membership until in 1925 the Society reached its high-water mark, as far as membership was concerned, in that a total number of 2435 physicians belonged to the Iowa State Medical Society. But there is still another side to this picture which must also be borne in mind. During the time of consistent gain in membership, the number of physicians in our state was likewise rapidly diminishing. This of course gave an ever decreasing field from which to recruit new members, but it also had its compensation in that the total percentage of physicians belonging to organized medicine proportionately increased. Then came the raise of dues in 1918 from \$4.00 to \$5.00, per annum. This source of increased revenue, together with that brought in from advertising facilities afforded by the Journal, coupled with practices of economy by the officers, raised very materially the income of the Society.

Likewise, in 1926 the annual dues were raised to \$7.50, and for a time there was a decided falling off in numerical strength of the Society, but the increased revenue from dues still maintained the integrity of the Society's financial strength. Eventually, things again became adjusted, membership increased once more, and from the humble beginnings of about \$9000.00 savings in 1916, with a total membership of 2133, organized medicine has grown in the commonwealth until last year our total membership consisted of 2311 physicians, with a total financial investment in society funds of almost \$43,000.00.

The secretarial and editorial offices long ago were

obliged to increase their space. Much equipment, including an addressograph, has increased the physical property of the Society and in addition the Board of Trustees has employed, for the past two years, a Managing Director and, most of the time, three stenographers, who have cared for the increased activities of the secretary's office, the editor's office, and that of various committees. Upon the whole, it has been my privilege to see the secretary's office of the Iowa State Medical Society grow and expand from rather humble beginnings to an up-to-date, thoroughly organized and vital part in this great scheme of Iowa medicine.

I would not have the House of Delegates think for one moment that the growth of our Society in numerical and financial strength was due to the work of the secretary's office. The success of it all is due to no individual; it is purely the result of cooperation on the part of the officers of our State Society, and sound business judgment on the part of those who have served as Trustees. Can one, however, blame your secretary in his digressing, for the moment, from the course heretofore pursued, and in fleetingly reminiscing on the activities of the Society during his years of secretaryship? Can he not properly take pride in feeling that his office has had some material part in the bringing about of these changes which point to progress and stability in the affairs of our Society?

As has been repeatedly stated at various times, it is not necessarily the number of members that counts, but rather, it is the quality and the activity of the membership as a whole which marks our organization as one of the nation's outstanding societies. A careful checkup last year showed that 3001 doctors of medicine were licensed to practice the healing art in this state. Of this number 2311 belonged to the Iowa State Medical Society, 70 were members who were delinquent for non-payment of dues, 307 physicians had been reported by various County Societies as being eligible to membership, 128 physicians were likewise reported as being ineligible to membership, 81 physicians were no longer engaged in the practice of medicine due to various reasons, and 104 new physicians had been licensed by the State Board of Medical Examiners to practice in this state, if they so chose. A moment's consideration of these facts reveals that our Society has within its ranks 80 per cent of all licensed doctors of medicine actually residing within our state.

During President McManus' term of office a membership campaign was instituted. A checkup of reports received from the County Secretaries revealed a large number of physicians listed as non-members. Realizing that each County Medical Society is the sole judge as to the qualifications of its members, it was the last thought of those interested in reducing the number of eligible non-members to interfere in any manner with the prerogatives of the County Societies. Therefore, a scheme was proposed by which each County Society, through its censors or otherwise, should carefully consider the list of non-members, divide the same into eligible and non-eligible

ble groups, and then proceed to recommend for membership those physicians who were regarded as eligible, such a recommendation virtually carrying with it a sure election by the Society in every instance where an approved non-member was approached for membership and his consent given to so offer his name. Such a procedure was instituted with very gratifying results. Ninety-three of the ninety-seven component County Societies sent in their lists and as before stated 307 physicians were classed as eligible non-members, and only 128 physicians were placed in the ineligible group. Such findings, I feel, bespeak the high type of physicians now practicing in our commonwealth, and the citizenry of the state may well be proud to know that such a small per cent of medical doctors are considered unworthy, for various reasons, to belong to organized medicine.

At the beginning of this campaign only one County Society—Audubon—could boast of having 100 per cent membership of eligible physicians residing within its borders. Evidently, competition became the spice of life and the order of the day, and last year twenty-three County Societies reported every eligible physician as belonging to his County Society. Surely such efforts were worthy of being crowned with success, especially when we realize that by this campaign 11 County Societies now have a membership ranging from 95 to 99 per cent of all eligibles, 10 range from 90 to 94 per cent, 15 range from 85 to 90 per cent, 12 range from 80 to 84 per cent, 11 range from 76 to 79 per cent, and 11 others range from 53 to 73 per cent. The four County Societies which failed to report are Humboldt, Linn, Polk and Taylor. My belief in the medical profession of Iowa, first gained as a boy in a country doctor's home and later from fourteen years of service in State Society affairs, is such that I predict the future will show a steady decline in the number of physicians practicing in Iowa who are not privileged to rejoice in those pleasures which come by virtue of belonging to organized medicine in county, state, and national medical societies. To this end permit me to state that it has been the policy of this office to work in harmony with the Department of the State Board of Health and the Board of Medical Examiners, and thus to ascertain the true status of all licensed physicians, and informing each County Secretary of the newly licensed physician taking up his residenceship in the County. In this manner it is to be hoped that the newly located physician may be approached in a friendly manner, invited to the meetings of the County Society, and eventually to be received as a new recruit in the ranks of organized medicine.

The fourth Annual Conference of Secretaries of the Component County Societies and Officers of the Iowa State Medical Society, was held in Des Moines, November 7, 1929. The value of such conferences has been visibly demonstrated by the increased activity of County Society affairs following the previous ones. A departure was made this year by inviting the deputy councilors to attend, thus affording direct and intimate contact of officials of the State Medical Society with those most active in County Society

affairs. Of the ninety-seven component County Societies, seventy-three were represented, the total attendance registering 136. These Annual Conferences are patterned after those instituted by the American Medical Association, which adopted this plan of calling in the Secretaries of the various State Societies for a conference with the official family of the American Medical Association at the home office in Chicago. It was first used as a war measure. The success of the first conference held in 1917 was so apparent that the Board of Trustees of the American Medical Association authorized the continuance of the same as a yearly program. Your Secretary has been privileged to attend each of these Conferences at the expense of the American Medical Association and here he learned, first handed, about the many problems which confronted the medical profession throughout the United States. As the years rolled by, many of the perplexing problems, first mentioned in the early conferences, gradually disappeared and American Medicine and the American Medical Association have each been the richer, as a result of the Annual State Secretaries Conferences. As mentioned in a previous report, your Secretary has been loud in his praise of these Annual Conferences in Iowa, and heartily supports the Board of Trustees in its willingness that the same be continued at the expense of our Society.

Another means for studying the national problems of the medical profession at close range has been afforded your Secretary in that he has been privileged to sit in the House of Delegates of the American Medical Association since 1922, as a delegate representing the Section on Nervous and Mental Diseases. Here again unlimited opportunity has been given for entering into the inner working of our national House and for learning, by personal contact, about the various problems which perplex the medical profession as a whole. Your Secretary has been honored several times by the Speaker of the House in being appointed Chairman of the Committee on Sections and Section work, as well as having been called to the home office of the Association for a conference on matters of considerable importance.

And before closing this, the fourteenth Annual Secretarial Report, your Secretary feels that he should say a word of appreciation to those members of the House with whom he has been privileged to work during this time. The good will, the loyalty, the encouragement which many of you have given me during my terms of office have been an inspiration to do more work, and better work for the upbuilding of Iowa medicine. No man can serve for fourteen years a profession as large in numbers as is ours, and not at some time do something, or say something, that will not offend someone. The only perfect man the world has ever known was crucified almost two thousand years ago, yet the Golden Rule of "doing unto others that which ye would have done unto you" still echoes down the ages. Of the twenty-six men who have served the Society as Secretary since its organization in 1850, it has been my privilege through the franchise of delegates and officers to

have served the longest. Yet throughout these past years my endeavor has been to serve the members of the Iowa State Medical Society to the very best of my ability, and I would crave indulgence for my short comings, forgiveness for any errors committed, and would have you feel that any mistakes made were of the head and not of the heart.

To the Secretaries of the various Component County Societies I would add this word of appreciation in closing. Many of you have served your local Society almost as long as I have had tenure of office. Your services, during whatever time you may have served, have ever been appreciated by me. Your acquaintanceship in many instances ripened into friendship. To you, and to your successors, must we leave the welfare of our State Medical Society. May you continue to serve many years, that your knowledge of medical affairs in County and State may keep our Iowa profession on that high level to which it long since attained. For all your past kindnesses, courtesies, and helpfulness, I now extend this small word of appreciation.

SECRETARY'S REPORT IOWA STATE MEDICAL SOCIETY

May 1, 1929 to May 1, 1930

Income

Balance in Bank April 30, 1929.....	\$ 0.00
Dues	\$16,717.50
Advertising	8,284.36
Honorarium-Advertising Bureau, A. M. A.	431.53
Reprints	1,144.26
Subscription, non-members.....	47.13
Sales	23.60
Total.....	\$26,648.38

Disbursements

Balance in Bankers Trust Bank, April 30, 1930	0.00
Bureau	\$ 1,276.48
Paid to Robert L. Parker, Treasurer.....	25,371.90
Balance in Bankers Trust Bank, April 30, 1930	0.00
Total.....	\$26,648.38

Respectfully submitted,
Tom B. Throckmorton, M.D., Secretary.

REPORT OF THE TREASURER

Dr. Robert L. Parker, Treasurer, presented his report, which upon motion duly seconded and carried, was accepted and referred to the Finance Committee.

Both income and expenditures for the year ending May 1, 1930 are considerably in excess of the preceding year, with the expenditures showing a greater gain than income, the total net result being that whereas in 1929 there was a gain of \$2,348.99, there is this year a gain of \$106.47. Each of these increases deserves brief analysis.

Both Income and Expenditures Increased by Annual Session

Last year the state society took over all financial details in connection with the Annual Session, and all monies collected and expended in connection therewith have gone through the Treasurer's account. Thus the income includes not only the rentals from technical exhibits, but also the annual banquet tickets sold to members; and the expenditures in-

clude not only the regular expenses in connection with the scientific program which are ordinarily between \$500 and \$600, but also payment in full for the annual banquet, expenses in connection with the exhibits, and all other items arising from the annual session. There was also another source of income from other annual meetings previously held in Des Moines, inasmuch as a fund of \$1135.19 (being the proceeds from exhibit rentals and contributions of the 1926 and prior sessions) was turned over by the local Des Moines committee to the state society. Later upon the showing that \$300 of this had been personal contributions made by members of the Polk County Medical Society, the Trustees voted to return that amount to the society, which item appears as an expenditure during the last year. Other expenses in connection with the Annual Session, including the cost of the banquet, amounting to \$2060.12, making a total of \$2360.12 of increased expenditures as the direct result of the state society taking over the Annual Session. The increased income on this same account, as outlined above, was \$3139.19.

Cost of Increased Service

As indicated in the Trustees' Report the increase in expenditures for 1930 over the preceding year is due to the larger number of services rendered through the state office. The expenditures for the year are listed under sixteen headings. In two of them there was a decrease, Stationery and Printing, and Speakers Bureau; and in seven other items the increase was so slight that for these nine items there was a net increase of \$277.29. The balance of the increased cost for the past year was divided among seven classifications each of which deserves brief analysis:

1. Among these is the \$300 refund made to the Polk County Medical Society and referred to above.
2. The Annual Session cost \$1469.40 more than the preceding year for reasons previously stated.
3. The Annual Conference of County Officers cost \$623.45 more than it did last year because there was a 55 per cent greater attendance.
4. Rent and Supplies increased \$421.57, due to more correspondence and committee work and to the necessity of maintaining an editor's office in Des Moines following the removal of the Journal office from Clinton.
5. Salaries for clerical help were \$454.63 greater than last year, largely because of the increased activities of various committees of the society.
6. The Managing Director was paid a salary for twelve months instead of only ten as in the preceding year, which increased costs \$1000; and other additional expenditures incurred by him amounted to \$796.44. Of this, \$532.36 was for traveling expenses incurred in the line of duty in visiting county societies upon call, and in connection with the work of various committees. Visits to 39 county societies are included in these traveling expenses for the past year, and in every case but two he was accompanied by one or more officers of the society, none of whom submitted expense accounts so that this item covers most of the traveling expenses of state officers.

Petty Cash expenditures and some postage including Journal postage, are made by the Managing Director out of a cash revolving fund, which expenses appear in his personal account and are covered, without exception, by receipt for all amounts over \$1.00 and by itemized statement. The total increases in these various items amounts to \$264.58.

7. There was an apparent increase of \$400 for officers' salaries. This is not real, however, for \$250 of it is due to the fact that the death of the Editor Emeritus occurred near the end of a quarter and that the salary for that period was paid immediately instead of falling in the ensuing fiscal year, with the result that five quarterly salary checks were issued on account of the Editor Emeritus during the past year. The remaining \$150 increase was the net result of the adjustment of the salaries of the Editor and the Secretary; the salaries of the officers of the state society having been during the past year:

Editor Emeritus.....	\$1,000
Editor	800
Secretary	800
Treasurer	150

Conclusion

The attached financial report sets forth in tabular form the facts above referred to, with the showing that the net worth of the society has increased from \$42,902.27 to \$43,008.74, a net gain of \$106.47.

The cost of increased services during the past year would have exceeded the income of the society by \$478.76, except for the special revenue from the former Des Moines local arrangements committee above referred to. That amount, \$1135.19, as originally received was decreased by the \$300 refunded to the Polk County Society. Credit should be given for the \$250 salary paid this year instead of next, and the \$106.47 balance should be credited leaving the net of \$478.76. Since no unusual income of this sort can be expected next year, it should be possible to decrease expenditures on account of certain committees whose work is nearly completed and to increase Journal revenues.

The summary statistical report showing the condition of the society as of April 30, 1930 is appended hereto and made a part of this report:

Investment as of May 1, 1929.....	\$42,902.27
Investment as of May 1, 1930.....	43,008.74
Represented by the following:	
Liberty Bonds (Face Value \$25,000)	\$24,806.77
Iowa-Des Moines Nat'l Bank & Trust Co. (Checking) ...	4,853.84
Iowa-Des Moines Nat'l Bank & Trust Co. (Savings) ..	13,348.13
Total Investment.....	\$43,008.74

The above report is verified by report of W. Widdup & Company certified public accountants, Des Moines, Iowa, which report is now in the hands of the Board of Trustees.

Financial Report

IOWA STATE MEDICAL SOCIETY

MAY 1, 1929, TO MAY 1, 1930

	Income		Increase or Decrease
	1929	1930	
Dues	\$16,690.00	\$16,717.50	27.50+
Advertising—Net	7,398.52	7,439.41	40.89+
Reprints	816.24	1,144.26	328.02+

Subscriptions	74.00	47.13	26.87—
Sales	11.05	23.60	12.55+
Total Receipts from Sec.....	\$24,989.81	\$25,371.90	\$ 382.09+
Savings Account.....	418.25	397.73	20.52—
Liberty Bonds.....	1,062.50	1,062.50	
Total Interest on Invest.....	\$ 1,480.75	\$ 1,460.23	20.52—
From Annual Sessions:			
Exhibit Rentals & Banquet Ticket Sales			
Balance from year 1926...		1,135.19	
For year 1929.....		2,004.00	
Total Receipts from Annual Sessions		3,139.19	3,139.19
Total Income.....	\$26,470.56	29,971.32	3,500.76+
Expenditures			
Miscellaneous	97.50	132.80	35.30+
Refund to Polk County Medical Society		300.00	300.00+
Rent and Office Supplies.....	1,420.42	1,841.99	421.57+
Telephone and Telegraph.....	315.63	401.84	86.21+
Stationery and Printing.....	1,214.10	878.34	335.76—
Officers Salaries.....	2,600.00	3,000.00	400.00+
Managing Director's Salary and Expense	5,524.83	7,321.77	1,796.94+
Office Salaries.....	2,070.79	2,525.42	454.63+
Journal Print and Engraving.....	6,722.80	6,931.32	208.52+
Reprints	624.34	748.07	123.73+
Administrative Expense.....	532.75	687.78	155.03+
Medico-Legal	1,371.70	1,376.63	4.93+
Annual Session	590.72	2,060.12	1,469.40+
Secretaries' Conference.....	934.40	1,557.85	623.45+
Legislative Committee.....	52.21	95.42	43.21+
Speakers Bureau.....	49.38	5.50	43.88—
Total Expenditures.....	\$24,121.57	29,864.85	5,743.28+
Net Income.....	2,348.99	106.47	2,242.52
Add			
Investment	40,553.28	42,902.27	
Total Investment.....	42,902.27	43,008.74	106.47
Liberty Bonds (Face Value \$25,000.00)	24,806.77	24,806.77	
Iowa-Des Moines Nat'l Bk. & Tr. Co. (checking).....	3,645.10	4,853.84	1,208.74
Iowa-Des Moines Nat'l Bk. & Tr. Co. (savings).....	14,450.40	13,348.13	1,102.27
Total	\$42,902.27	\$43,008.74	\$ 106.47

President Peck then announced that as the fiscal year of the Society closes on May 1, the reports of the Secretary and of the Treasurer, with the auditing of the accounts, could not be included in the handbook for the House of Delegates, but as regards the reports of other officers and most of the committees, the same were included in the handbook, which had been placed in the hands of the delegates prior to the meeting of the House.

REPORT OF THE CHAIRMAN OF THE COUNCIL

The report of the Council was presented by the Chairman, Dr. Channing G. Smith, who stated that he had nothing to add to the report as it appeared in the handbook and moved that the same be adopted and placed on file. The motion being duly seconded, was carried.

House of Delegates, Iowa State Medical Society:

The Council has not instigated any new activities during the past year, believing that should the state be redistricted and a new Council elected, it would not be wise to have unfinished business on hand. The employment of a managing director has likewise materially reduced the detailed work of the Council.

The physicians of the state are unanimously in favor of prevention of disease, nor is there any question that the results of preventive medicine have already been shown in the reduction of the morbidity incidence.

It would appear to the Council that, as we are

seeking to eliminate that by which we live and have done so to a remarkable extent, that the power and influence of the State Society should be used to the fullest extent to increase the practice in those fields where it may ethically, legitimately and wisely be done.

There are many such opportunities, among others, periodic health examinations, insistence upon reasonable remuneration for charity and preventive measures, to winning back a large percentage of patients who are seeking relief outside the fold of scientific medicine. Health examinations are being made in increasing numbers and it has come to the attention of the Council that doctors are charging various fees in different localities—one dollar, two dollars, three dollars or five dollars. We urge that a uniform examination blank be adopted and a uniform minimum charge be established.

A proportionately greater number of physicians are members of our medical societies than ever before. The status of the profession was never better, except financially. There is no question that depressed business conditions have adversely affected us, as they have other activities. This plight will not be remedied easily or quickly.

The zeal and activity of the members and component societies has markedly increased, carrying with it a redoubled feeling of fraternal spirit and a fuller realization that all physicians are compeers and not competitors.

Channing G. Smith, Chairman of the Council.

President Peck then announced that inasmuch as the reports from the eleven councilor districts were published in the handbook, if there were no objections the same would be accepted and placed on file.

REPORTS FROM COUNCILOR DISTRICTS

First Councilor District

Your Councilor visited society meetings in the following counties: Washington, Louisa, Lee and Des Moines. There was no notice received of meetings in Henry, Jefferson or Van Buren Counties.

In my opinion the physicians are, with few exceptions, maintaining a satisfactory degree of professional attainments. In economic depressions the physician is one of the first to suffer. Such depression exists in our district, but perhaps no worse than in other parts of the state. I have talked with a number of physicians in the district and have been impressed by the frequent observation that many of their patients, who have previously been considered honest, take advantage of the generally accepted fact that times are hard, and make no adequate attempt to settle their obligations. If such a condition persists for a long period of time it is very likely to reflect finally upon the professional status of the physician, for the physician must continually spend time and money in order to keep step with advances in medicine. My previous observations on the fate of the medical society in rural communities still hold. I believe that in many such communities they will exist chiefly for the handling of economic problems

and that their members will go to nearby larger societies for most of their professional medical programs.

George B. Crow, Councilor.

Second Councilor District

The counties of the second district consisting of Clinton, Jackson, Johnson, Iowa, Muscatine and Scott are functioning normally. Meetings are being held regularly and we hope to maintain state representation at a high level.

A. P. Donohoe, Councilor.

Third Councilor District

Three counties outside my own have been visited on invitation, and one county, namely Hardin, complied with a request to their Deputy Councilor for a report of activities during the year.

The Bremer County Society was visited on December 12th, 1929. There was a dinner program, a very excellent discussion by Dr. Britt of Waterloo on the X-ray diagnosis of stomach lesions. The annual business followed. Bremer, as usual, shows a very thrifty condition.

Black Hawk was visited on January 7th, it being their annual meeting. Dr. W. P. Wagner of Rochester gave an illustrated discussion of the eye findings in arteriosclerosis, followed by election of officers. The society appears to be functioning in a very good way and has in its membership all of the eligible practitioners of the county. Meetings are held quarterly at the hospitals which should be very helpful and instructive.

Delaware County Society was visited on February 21st, on invitation. There was the annual election and routine of business. Dr. Britt of Waterloo gave a discussion on gall bladder disease, illustrated by X-ray films. There was a very pointed discussion of the ethical side of the practice of medicine which will probably help to weed out some of the evils which, in the past, have hampered their organization.

Dr. W. E. Marsh, on request, gives a very good report of Hardin County and the affairs of the society which seems to be in an active and healthy condition.

Owing to the death of Dr. Guthrie, Deputy Councilor of Dubuque County, no report is available from there.

Deputies from Butler, Franklin and Wright Counties failed to respond when requested to give a report.

Buchanan County holds their meetings quarterly and, as a rule, the full membership which includes all eligible practitioners attends. The meetings have been very good and the interest keen. All members of the society are members of the hospital staff which meets once a month which with the quarterly meetings of the County Society give the members frequent contacts for the discussion of medical problems.

Only one complaint has been filed with the Councilor during the year, that of a regular consulting with and doing surgery for an osteopath. Since the complainant failed to produce the evidence in proper form as requested, this complaint could not be brought before the interested society for consideration.

Fred F. Agnew, Councilor.

Fourth Councilor District

As Councilor from the Fourth District I beg to report that I have visited several of the county medical societies and found them all doing good work. A little irregularity came to me; otherwise Northeastern Iowa is progressing as well as usual.

Like my former report, I want to urge all the component county societies to elect a delegate or an alternate to attend the State meeting. When I say attend I mean to stay there until the meeting adjourns. I want to thank my deputy councilors for their work.

Paul E. Gardner, Councilor.

Fifth Councilor District

The Councilor from the Fifth District makes the following report for the year 1929-30. The councilor reports that he has made nine addresses on health subjects to the P. T. A. of various communities and that he has two more addresses before the end of the fiscal year, making a total of eleven.

The Marshall County Medical Society through its Deputy Councilor Dr. R. S. Grossman reports seven regular monthly meetings at which scientific programs were conducted. In addition to this the annual June clinic was given, followed by an evening of entertainment for the doctors, their families and guests from surrounding cities. The monthly scientific programs were exceptionally well attended and very high grade papers and discussions were given. The out of town speakers were Dr. Everett Bannick, Mayo Clinic; Dr. Verne C. Hunt, Mayo Clinic; Dr. John H. Peck, Des Moines, Iowa; Dr. James Weir, Mayo Clinic; Dr. Andrew H. Woods, Iowa City, Iowa; Dr. Cecil Jones, Des Moines, Iowa; Dr. Floyd Rice, Des Moines, Iowa, and Dr. Dean Lierle, Iowa City, Iowa.

Dr. J. E. Luckey, Deputy Councilor for the Benton County Medical Society, reports no activities for the year 1929.

Dr. Arthur A. Pace, Deputy Councilor for Tama County, reports total number of doctors in county, twenty-six; members in good standing in county society, twenty-two; members dropped for non-payment of dues, three; members refused admittance to society, one; number meetings held in 1929, six; average attendance of members, ten; officers for 1930, President, H. J. VonLackum, Dysart, Iowa; Vice President, K. E. Fee, Toledo, Iowa; Secretary-Treasurer, C. S. Stoakes, Dysart, Iowa; Censors, T. L. Parsons, A. A. Pace, M. L. Allen. The activities for the year 1929—contract for county poor, regular fee instead of bidding for work; 20 per cent less for pauper work; membership agreed to exchange dead beat list. Dr. Steelsmith and Mr. Vernon Blank addressed on county health unit. The general interest of the society was maintained throughout the year.

Cedar County through its Deputy Councilor Dr. E. J. Van Metre reports that Dr. W. H. Jenks was elected president of the society, Dr. E. J. Van Metre, secretary-treasurer and no delegate to the state meeting was named. No meetings of the society were held during the year. The physicians of the society at-

tended meetings in adjoining counties. The county health unit has no appeal because of the local condition.

Dr. M. H. Thielen, Deputy Councilor for Grundy County Medical Society, reports the society held three successful meetings during this year. Also held a special meeting at which Mr. Blank was present and gave some very valuable information. On March 10, 1930, the society gave a six o'clock dinner at Hotel Columbia in honor of Dr. Eugene Crouse of Grundy Center for having been in continuous practice for sixty years, fifty-eight of which were spent in Grundy Center. The doctor is still active in practice and the society hopes to honor him again on his sixty-fifth anniversary. The society has renewed interest and is assured of a profitable and successful 1930.

Dr. L. M. Downing reporting as Deputy Councilor for the Linn County Medical Society—the Linn County Medical Society has had a very successful year and meetings have been well attended. The speakers during 1929 and 1930 are as follows:

Sept. 12, 1929	Dr. J. P. Greenhill, Chicago, Ill.
Oct. 10, 1929	Dr. Walter W. Hamburger, Chicago, Ill.
Nov. 14, 1929	Dr. Norman F. Miller, Iowa City, Iowa.
Dec. 12, 1929	Dr. N. G. Alcock, Iowa City, Iowa.
Jan. 16, 1930	Dr. Verne C. Hunt, Rochester, Minn.
Jan. 22, 1930	no scientific program.
Feb. 26, 1930	no speaker, scientific program consisted of three reel moving picture.
March 13, 1930	Dr. Jas. A. Bigler, Chicago, Ill.

The Jones County Medical Society reports through its Deputy Councilor Dr. T. M. Redmond that the society has had no activities for the past year; no meetings have been held but one which was for the purpose of electing officers. The members of the Jones County Society find it more convenient to attend the meetings of the Linn County Society where scientific programs have been already arranged.

Aaron C. Conaway, Councilor.

Sixth Councilor District

The counties of the sixth district have active medical societies and are taking as much interest in organized medicine as at any previous time. These societies will average well with other societies according to their numbers. This district is in a favorable and prosperous part of the state and requires the services of high class physicians and surgeons. It is well equipped with hospitals and plenty of physicians to render the necessary medical service.

The people are served by one hundred and sixty-five physicians located in forty-two places. One hundred of these are in the seven largest cities. The people of the whole district are in close touch with physicians scattered over its entire area.

The physicians of the district have changed very little in numbers or personnel. The average age is fifty-five, showing a small number of young physicians. There are forty-six under fifty years of age

and one hundred and nineteen over fifty. The average of those past fifty, is sixty years.

In one city they average sixty-three. Evidently the young physicians are not locating in this district. Even the best cities are not attracting them. There are ample physicians now, but with the modern tendency of the practice of medicine, there will be none to take their places in more than half the locations when the present ones retire. The day is fast closing in on the country physician.

Higher requirements, the long time, more expensive education and costly equipment make the expense of medicine so great that the present graduate passes up the small town. The distribution of physicians creates a social and economic problem to be solved. People will live where there are physicians and many communities will be undesirable for residence because there is no physician. In former years every community produced physicians to supply the demand. A large per cent of the physicians of this district are local products. In one county every physician but one is practicing in his home town.

The independent family physician is being displaced by the wholesale mass treatment of the clinics, group practice and specialists. The publicity and propaganda of the large clinics interferes with the practice of medicine in every county.

In ten years the average age of the present physician will be more than the average life time of a physician.

There will not be sufficient replacement of the present physicians in even the best cities, so there is sure to be a decrease in this district. The problem of having enough physicians to render the proper medical service to the people even in well populated communities, will be before the public in the near future.

The financial returns do not attract young men to medicine, and the great expense keeps them out.

Fewer physicians will do the medical and surgical work and they will be found where the public maintains an up to date hospital, co-operates with and supports them best.

What opportunities the community offers will have much to do with its public health and welfare.

S. T. Gray, Councilor.

Seventh Councilor District

Dallas-Guthrie Counties.—Members of the Medical Profession in Dallas County united with the members in Guthrie County a number of years ago to form the Dallas-Guthrie County Medical Society. I think this was the most practical step organized medicine in our community has ever taken. It has given us excellent programs quarterly, good attendance and made possible a friendly fellowship that, I am sure, cannot be excelled anywhere in the state.

Our membership does not comprise nor include every physician in the two counties. We have two or three who are near four score years who prefer to remain inactive, although in years past they have been active. Then we have those who will not join and also those to whom the society declines membership.

I think the strength of a County Society is directly dependent upon the activity of its Secretary. Our Society is fortunate in having, for a number of years past, Dr. S. J. Brown, Panora, as Secretary. He has a good personality, is well respected by the profession and has the knack and interest required to develop and promote a good program.

Under the present direction I feel sure that our County Society, as well as its members, have a pleasant and worthy future.

George Elvidge, Deputy Councilor.

Polk County.—The largest County Medical Society in the State of Iowa has been in a state of lethargy for several years. A crisis is usually necessary to awaken any organization from such a somnolent state. In November the Society realized that it was financially embarrassed. Unquestionably the dues were too low, yet too high in proportion to the amount of benefit derived by the component members. Moreover the society was spending more upon social entertainment than education. Progressive and constructive leadership has been lacking. There exists another local condition which has detracted the interest of some of the more progressive members. In Des Moines there are two Medical Study Clubs, The Des Moines Academy of Medicine, and The Academy of Ophthalmology and Oto-laryngology. Program committees have experienced difficulty coercing members to present subjects and presenting papers before some other medical organization. Thus the County Society has suffered at the expense of the smaller and more exclusive societies. One hesitates to broadcast such unfavorable conditions unless there appears a remedy soon to become effective.

A Committee was appointed to analyse conditions and was empowered to constructively reorganize the whole fabric from Constitution and By-Laws on down. First a moderate increase in dues was made to render the Society solvent. Then a full time lay Executive Secretary was selected by the committee and approved by the Society. This gentleman is now editing a monthly Bulletin which is supported by advertising and contains the Monthly Programs, a resume of the various Hospital Staff Meetings, medical and other activities of the various members, and articles the nature of which will tend to bring the profession as a whole into closer cooperation and harmony. The committee, consisting of Dr. John H. Peck, chairman, Dr. Fred Moore, Dr. F. W. Fordyce, Dr. L. K. Meredith and Dr. F. R. Holbrook, after much deliberation and many revisions, has drawn a set of Rules and Regulations to supersede the present Constitution and By-Laws. If they are accepted and approved at the April meeting, as is most likely, the Society will be on a firm financial basis which will permit the presentation of programs which will command the interest, respect, and result in closer allegiance to the Polk County Medical Society. The Society intends to offer each member something worth while so that the 58 eligible physicians residing in Polk County who are not members will de-

velop a definite desire for and pride in membership rather than their present non-interest.

After we get under way in the fall members of other County Societies should find it interesting and will be more than welcome to visit our monthly meetings.

Cecil C. Jones, Deputy Councilor.

Madison County.—It seems to me something should be done to revive the Madison County Medical Society. We have an able group of men, but through lack of interest the Society seems to have perished. We meet once a year, elect officers and that usually ends it.

While it is true a goodly number of our men are past middle age, yet organized medicine demands that we have a more active Society in Madison County if we are to serve and be served to the best advantage. County meetings are not alone a source of learning but in my estimation the best thing to stimulate a feeling of friendliness, and a sense of fair play among its members.

Any suggestions that will help to correct the situation in my county will be appreciated.

Ivan K. Sayre, Deputy Councilor.

The Marion County Medical Society has had a very successful year. We are one of the hundred per cent counties in membership. All of the eligibles have been brought into the fold of organized medicine. There have been no additions to our roll the current year and the grim reaper has seen fit to pass us by.

Our Constitution and By-Laws provide for quarterly meetings and they have been held (four of them) according to schedule. The attendance at these meetings has been good but could be improved.

Our county poor contract is in its eighth year of successful operation. It is a great help to the Society in every way, and we hope it can be continued indefinitely.

The cults in the county seat have organized a local chapter of the American Medical Liberty League and were active with propaganda in the form of display ads, hand bills, and mass meetings opposing small-pox vaccination this past winter. In the end they were driven to cover through the efforts of a veterinarian mayor, with the aid of some of the individual members of the county medical society, camouflaged as the Board of Health. The lesson learned from this occurrence is, that it is up to the members of the profession to educate the laymen, even to the point of using display ads as the cults do.

Mr. Vernon D. Blank paid our Society a visit at our annual meeting in December. We are all favorably impressed with him and the capable manner in which he is fulfilling his duties as managing director of the State Society.

Corwin S. Cornell, Deputy Councilor.

Story County Medical Society adopted something of an innovation in 1929 by joining with Boone County in bi-monthly meetings, alternating the meetings between Boone and Ames. The plan has worked

to the satisfaction of all, and so far as we can now see, may be continued indefinitely. The programs were carefully arranged by the very efficient secretaries. The papers were of real scientific value and with two exceptions were prepared by local members. The social side was not forgotten; an enjoyable banquet preceded each meeting, which helps, no doubt, to account for the exceptional attendance we have had.

In an effort to obtain a 100 per cent membership we secured the application of every eligible physician in the county; but alas! some failed to appear for enrollment, and some lapsed for N.P.D. We are not in the 100 per cent column.

An attempt was made to induce the Society to take on a contract for the care of the county poor, and we had some assurance that the County Board of Supervisors were willing to consider such a contract. A canvass, however, showed the membership about equally divided for and against it. It seems clear that the plan will not work satisfactorily without a nearly unanimous support, so it has been dropped for the present.

We hope to have the society commit itself to the idea of a County Health Unit with, ultimately, a full time health officer; but so far nothing has been accomplished in this time.

P. Joor, Deputy Councilor.

Eighth Councilor District

All the County Societies in this district are functioning, at least up to the minimum requirement. Several report a number of meetings during the year; others a single meeting. There are still, for various reasons, too many men eligible for membership outside of the Societies. The Southwestern Iowa Medical Society met this year at Leon and brought together, as usual, physicians from the whole district. I am glad to report no serious trouble of any kind in the district.

James G. Macrae, Councilor.

Ninth Councilor District

Henry B. Jennings of Council Bluffs has been Councilor for the Ninth Councilor District for many years. He passed away September 6, 1929, and his successor has not been appointed hence only a partial report is available for that district.

Cass County.—Held two meetings with an average attendance of twelve physicians, but two meetings had to be cancelled on account of road conditions. Total membership is eighteen and no eligible non-members. Good interest and cooperation in every respect.

G. M. Adair, Deputy Councilor.

Harrison County.—One mid-winter and one mid-summer meeting was held with an average attendance of twelve. We have twenty members and four eligible non-members, two of whom will probably send dues later. There is good fellowship and fine interest in the programs and other activities. A

committee has been appointed to meet with the supervisors to organize a county health unit.

F. H. Hanson, Deputy Councilor.

Montgomery County.—This society is very inactive, having held but one meeting during the past year. The only eligible non-member is a physician recently moved into the county. No special activities are carried on.

Velura E. Powell, Secretary.

Pottawattamie County.—Six meetings were held last year with an average attendance of twenty-five members. These meetings are valuable to men living in Council Bluffs, but it is difficult with a few exceptions to get men from other towns in the county to attend. There are fifty-five members and five eligible non-members, most of whom will soon join our society. There is excellent cooperation with the Visiting Nurses Association and other organizations. At present the society is trying to obtain a contract for care of the indigent sick from the Board of Supervisors.

Gorden N. Best, Secretary.

Shelby County.—Two meetings were held with an average attendance of eight of our ten members. Outside programs seem to be necessary to attract members. But one eligible non-member and he is not very active hence does not desire membership. The small size of the society reacts against activity in meetings, public affairs, etc. Favorable public relations exist but rather few opportunities for service.

A. L. Nielson, Deputy Councilor.

Tenth Councilor District

I am pleased to make the following report of the County Medical Society, and the condition of the medical profession in general in the Tenth District, which is composed of fourteen counties with thirteen County Medical Societies.

Hancock-Winnebago counties, hyphenated in one, has a membership of eighteen with one to be added shortly, which will be a 100 per cent Society. Four meetings last year, well attended and all interested in organized medicine.

Kossuth County Medical Society has fourteen members with four eligible non-members, which it is hoped will soon become members. Had only two meetings in past year and expect to have more in next year, as members are much interested and will make an extra effort to increase interest.

Emmet County Medical Society has twelve active members, but owing to the lack of perfect unity, meetings are not well attended. Although all are interested in State Society, all have paid their dues and are hoping to arouse more interest. I might say that the question regarding the osteopath, which was up a year ago in the county does not seem to be completely settled.

Palo Alto County Medical Society is 100 per cent and going strong, with a membership which is much interested in their frequent meetings.

Pocahontas County Medical Society is also a 100 per cent Society with twenty active members, holds several meetings annually. Much interested in the good work done by our legislative committee at the last session of legislature.

Humboldt County Medical Society has membership of four, and holds one meeting annually. The explanation is that the county has twelve physicians who are in towns near the north and west border of county and are members of adjoining County Medical Societies. However, the physicians in county are active and interested in organized medicine.

Calhoun County Society has twenty-three active members, 100 per cent Society and holds eight meetings annually, and far in advance of the average County Medical Society, as shown by work done along lines of lay education.

Webster County Medical Society has forty-five members, forty paid-up and have in the county only two eligible non-members. During 1929 they held fourteen meetings, well attended, Society very active and heartily endorses organized medicine.

Hamilton County Medical Society has fifteen paid-up members and three eligible non-members in county. Held two meetings last year with lack of interest in County Society as well as in county unit, but interested in organized medicine.

Crawford County Medical Society has a membership of twelve active members with five eligible non-members. It is expected their membership will increase this year. They had six well attended meetings in past year. At the last meeting, Mr. Vernon Blank was present with results that a proposed contract was submitted to the county board of supervisors for taking care of the sick poor.

Carroll County Medical Society has twenty-two members; much apathy is manifest, no meetings have been held although they pay their dues promptly. This condition is explained by the fact that the two hospitals at Carroll which hold their staff meetings detract from County Society meetings. All members are interested in organized medicine, county unit plan and State Society.

Greene County Medical Society has sixteen active members, are getting along harmoniously, have four meetings annually, two eligible non-members and the society is in favor of the county unit plan.

Boone County Medical Society has a meeting every month in the year except July and August. This society has twenty members, a good harmonious 100 per cent society. Has lost one member by removal, Dr. C. A. Noland, and one by death, Dr. G. H. Stanger; two by retirement, Dr. Peo and Dr. Harpel. They have gained two, Drs. Cooper and Powers.

The conditions in the Tenth District have much improved and more interest is shown in every direction pertaining to organized medicine since my last report.

W. W. Beam, Councilor.

Eleventh Councilor District

The first Councilor was Dr. Hornibrook of Cherokee who found County Societies quite rare in Northwest Iowa. Through his efforts all of the thirteen counties

organized but soon found there was but little interest in local meetings and many societies existed in name only. Then came the District Society. Lyon, Osceola, Sioux and O'Brien organized the Northwest Iowa Medical Society and from the first this society was well attended, had attractive programs and met the fate of many innovations by being opposed by the State Society. However, the local men enjoyed their district meetings and their success inspired the creation of the Four County Medical Society, composed of Plymouth, Cherokee, Buena Vista and Ida counties. This new society at once became popular, meetings well attended and greatly enjoyed. The success of these two district societies largely influenced the organization of the Upper Des Moines Society giving Dickinson and Clay active interesting meetings. The Twin Lakes District Society is the last to come into the field and has given Sac County a real live medical organization to associate with.

Woodbury and Monona counties hold joint meetings at least once a year.

With the adoption of the plan to have but ten districts in the state some changes must occur but I doubt if it will materially affect the district organizations now in the field.

The County Unit plan is meeting with more favorable consideration by the county doctors who see the more populous counties containing cities moving toward a more efficient plan of dealing with public health problems.

G. C. Moorehead, Councilor.

REPORT OF THE TRUSTEES

The report of the Board of Trustees was presented by the Chairman, Dr. Oliver J. Fay, who moved that inasmuch as the report of the Board was published in the handbook and there were no additions to make at this time, the same be accepted and placed on file. The motion being seconded by Dr. Channing G. Smith, Granger, was put and carried.

House of Delegates, Iowa State Medical Society:

The final audit of the books of the Iowa State Medical Society for the year ending April 30, 1930, shows a marked increase in both income and expenditures over the previous year. A part of this increase is due to the fact that the State Society took over the fiscal affairs of the annual session; its income was accordingly increased by exhibit rentals and by banquet ticket sales while its expenditures included exhibit expenses, the cost of the annual banquet, and other costs. Expenditures and income for the year approximately balance in contrast to a net gain of \$2,300.00 for the preceding year. The various factors which enter into the changed financial balance are, we believe, of deep interest to the Society and merit detailed consideration.

There has been no increase in income from membership dues, nor can we expect any material increase from this source since the number of Iowa physicians is apparently decreasing, and the Society membership already includes over 88 per cent of all eligible physicians within the state. A considerable percentage of the eligible non-members are semi-

retired, or for financial or personal reasons are not apt to affiliate with organized medicine in any case, yet certain societies probably can increase their membership, and it is hoped that they will do so.

There has been a slight increase in JOURNAL income and the publication has shown a profit for the year of approximately \$500.00. This is slightly less than the profit of the preceding year because a larger and better, therefore a more costly JOURNAL has been published. The quality of the paper and of the make-up was improved, a larger number of cuts has been used, the size has been increased 8 per cent, but the increase in cost has been only 3 per cent due to the fact that a better contract has been in force during the last four months of the fiscal year. There have been economic changes in the medical merchandising field resulting in the loss of some \$1,200.00 of annual accounts, but this has been more than offset by the receipt of new accounts amounting to \$1,745.00 through the Cooperative Advertising Bureau of the American Medical Association, and of new local accounts secured by the managing director totalling \$1,026.00. The general improvement in the JOURNAL has been an important factor in securing this advertising, and suggests that continued improvement is a good business asset.

The increase in expenses during the year immediately past over 1928-1929 was in the main due to the unusual amount of work done by certain committees, and the greater service rendered to county societies and to society members by the various state officers. Another factor is that during the past year the managing director received his salary for the twelve month period as against ten months the preceding year. Since these inter-society activities, service to component societies and their members, are the chief functions of the State Society they are here mentioned in detail:

Seventy-three of the ninety-seven county societies were represented at the Fourth Annual Conference of county officers which attracted an all-day attendance of 136, or 48 more than attended the year before. This increased attendance of 55 per cent added \$627.89 to the cost as compared to that of the 1928 conference. Since the object of these conferences is the betterment of county organization and the solution of various local personal and society problems this expenditure is to be considered strictly for service.

Two of the newly appointed special committees, the Committee on Medical Education and Hospitals and the Medical Economics Committee, have incurred considerable expense for increased clerical work and traveling expenses, but the sum is trivial when compared with the great amount of time the members of these committees have contributed, and the immense benefit their work will bring to organized medicine. The members of the Committee on Medical Education and Hospitals have devoted twelve full days to committee meetings, the members of the Committee on Medical Economics three; but such a statement is an inadequate measure of the time, thought, and energy which has been devoted to the problems assigned these committees by the House of Delegates.

The state office has received continuous requests for speakers both on scientific and economic subjects, for motion picture films, post-graduate courses, and other program services; proof of the necessity for maintaining a program bureau. The state society office was instrumental in the promotion of two post-graduate courses conducted by members of the University College of Medicine faculty, one in Waterloo and one in Mason City. The courses consisted of four hours on the same day of each week for ten consecutive weeks. Enrollments exceeded the limits fixed, and their success indicates the need for further work in this line.

The organization and maintenance of a speaker's bureau for the purpose of lay education is equally important. The managing director has recruited a considerable number of qualified speakers from among the membership of this society, is collecting and classifying data on various health and medical subjects, and has been arranging speaking dates for an increasing number of physicians to present the message of scientific medicine before lay organizations. This work is of vital importance. It should be greatly extended and this can readily be done, with but slight increase in personnel and operating costs.

Not only the managing director, but the president of the society and the chairman and other members of the Council have made an increased number of appearances before county and district societies. The records indicate that these officers have attended thirty-seven society meetings and when it is considered that the majority of these are held at night, involving inconvenient railway journeys or long hours of night driving, we have some measure of the time and energy so freely spent by these officers. These visits to component societies are in accordance with the principles and specific provisions of the constitution and by-laws, and are of real value both to the local and to the state society in keeping the members informed, interested and active in the various undertakings of their society. Yet in no case have the officers of the society submitted expense accounts, so that the traveling expenses of the managing director, amounting to about \$640.00 represents the entire cost to the state society of these contacts.

At the suggestion of the American Medical Association and the Woman's Auxiliary thereof, and with the approval of the House of Delegates, a Woman's Auxiliary to the Iowa State Medical Society was organized last year, and seven local auxiliaries have since been organized with the prospect of further rapid development. While Iowa was one of the last states to fall in line with this national movement, its present activities have won favorable recognition from the National Auxiliary. The expenses in connection with this organizing work have been very slight, consisting largely in assistance given by the managing director, in clerical services given in the state office to officers of the state auxiliary, and in the preparation and publication of a small circular, "Reasons for a Woman's Auxiliary."

These various increased activities and extended services required more clerical help, more office sup-

plies, more postage, more use of telegraph and telephone, greater expenditures for traveling. The increase under these items during the past year totaled \$1,957.59. This item together with the \$627.89 increase in the cost of the Annual Conference accounts for an increase of \$2,585.48 in society expenses, exceeding by some \$285.00 the net gain of the previous year. Since the Constitution of the Society clearly sets forth that the purposes of the Society are to serve the profession and its members, and there is nothing in constitution or by-laws which empowers the Board of Trustees or any other body of the Society to accumulate money or to become an investment institution, your Board of Trustees feels that in expending the entire income of the past year in carrying on the work of the Society, it has fulfilled its task. It has endeavored to carry out the provisions of the constitution and by-laws and the resolutions of the House of Delegates and to render efficient service to the component societies and their membership. It is, therefore, proud of the past year's record of increased activities and services rendered, and in the light of the experience of the past two years, it would recommend the continuance of a permanent central office with a lay executive in charge, the extension of present activities as the demands of the component societies and our membership warrant, and to this end, the addition of a qualified clerk or secretary to have especial responsibility for all routine details connected with the maintenance of a speaker's bureau. Any increase in society dues cannot be recommended at this time so that any additional income must be secured from added revenue from the JOURNAL, and from additional income from exhibit rentals.

Oliver J. Fay, Chairman,
John F. Herrick,
Vernon L. Treynor,
Trustees.

Dr. Thomas A. Burcham, Des Moines, then asked whether the acceptance of the Trustees Report included the recommendations contained in the closing paragraph of the report, relative to "the continuance of a permanent central office with a lay executive in charge, the extension of present activities, and the addition of a clerk or secretary to care for the details connected with the Speakers Bureau."

The Chair stated that all recommendations contained in the reports of officers and committees would be considered under the head of New Business, as at this time the House was simply considering the reports.

REPORT OF DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

The report of the Delegates to the American Medical Association was presented by Dr. William Jepson, Sioux City, who stated that while Dr. Thomas F. Thornton, Waterloo, should have presented the same, in the doctor's absence, he was doing so, and moved that the report, as included in the handbook of delegates, be accepted and placed on file.

The motion being duly seconded by Dr. Daniel J.

Townsend, Lohrville, the same was put by the Chair and carried.

House of Delegates, Iowa State Medical Society:

Your Society was represented at the Portland meeting in July, 1929, by three of your members, namely, Dr. T. F. Thornton, Dr. William Jepson, and Dr. T. B. Throckmorton. Dr. Thornton was a duly elected delegate. Dr. William Jepson served as alternate for Dr. B. L. Eiker who was unable to attend on account of illness. Dr. Donald Macrae, being unable to attend for a similar reason, had no alternate present. Dr. Throckmorton was a delegate at large, representing the section of Neurology.

Among the various topics that came up for consideration, there were five of outstanding interest to our Society, viz.:

1. Regulations governing attendance.
2. Compensation for such attendance.
3. Home for indigent superannuated medical men.
4. Contract practice.
5. Increase in price of journal so additional buildings might be erected.

First. The speaker of the House of Delegates sought to and did enforce the regulation that none might be seated as a delegate who had not been duly elected by his constituent society and been properly registered with the National Secretary as such delegate. This prevented your society from having a full representation.

It is believed that if our society seeks to have a voice in the affairs of the National Society, that it should consider its delegates from the standpoint of efficiency in representation rather than as a means of bestowing an honor, and it should maintain them there as long as efficient services are secured, and it should defray their expenses.

Second. The question of defraying from the treasury of the National Association the expenses of delegates in attendance came up for consideration but failed of adequate support to become a law.

It may be a mooted question as to whether delegates to the National meeting should have their expenses defrayed, yet, if the activities of the National House of Delegates are worth while, and this is not questioned, to our profession, both state and national, then it would seemingly be nothing but just that they were reimbursed for their expenses. Until this is done, the National House of Delegates must of necessity be restricted to such as have ample means to defray their own expenses. That such representation will at all times be in the best interest of our profession may well be questioned, and was well illustrated in the House of Delegates, when dealing with the question of aid to superannuated indigent members of our profession.

Third. The matter of aid to superannuated members of our profession who might be in need of the same was brought before the house, but failed of any special support except by the delegation from New York who had sponsored the bill. The reason assigned by most of the speakers against the bill was the lack of need for such aid, there being no superannuated physicians who needed such aid, and

if they did, they would not accept of it. It must be true that those of us who are fairly well supplied with this world's goods and quite beyond want will find it a little difficult to visualize want, yet that such occasionally comes to aged members of our profession, as well as to members of other professions, can hardly be questioned, and when it does is equally as meritorious of aid, and that it should be provided, if not through the national organization, then through our own.

Fourth. The question of contract practice had an entire afternoon devoted to its consideration by the House of Delegates, sitting as a committee of the whole. No definite action was taken. The same being deferred to a later date.

There are few if any problems before the profession today of greater importance to it than those involved in the various phases of contract practice, and your delegates recommend that a committee be appointed which shall be charged with the duty of determining how far the same is justifiable and essential in our state, and to bring to this body their recommendations for action at the next meeting of this House of Delegates.

Fifth. The committee upon buildings called attention to the fact that the buildings now possessed by the Association were inadequate and devoid of those architectural features which should characterize our profession, and recommended the erection of new buildings, meeting the requirements in the foregoing respects. An increase in dues or in price of the journal was authorized to defray this expense.

William Jepson
Thomas F. Thornton
Donald Macrae
Delegates

REPORT OF THE MANAGING DIRECTOR

The report of Mr. Vernon D. Blank, Managing Director of the Society, was then called for. Mr. Blank explained that he had nothing further to add to the report as published in the handbook.

The Chair then stated that if there were no objections the Managing Director's report would be received and placed on file.

House of Delegates, Iowa State Medical Society:

The past year has produced greater income than before and has thereby made possible several additional services and important, new undertakings. Income from the JOURNAL shows a gain, but there was a corresponding increase in expenditures due to improved quality and more pages. There has been no marked membership increase during the last year largely because the membership campaign conducted during the administration of Dr. McManus, increased most of the active county societies to approximately 100 per cent membership. One of the projects for the coming year might well be a more intensive effort in those counties having low membership percentages, especially since the members of the council could use the services of the state office in extending personal assistance to the less active societies in their respective districts.

There is another factor which has a deep and posi-

tive influence on all efforts to increase membership, that is the age distribution of Iowa physicians. There are 2,775 physicians who are members or eligible to membership in the Iowa State Medical Society. Of these, 25 per cent are over 60 years of age, 19 per cent are under 40, and 56 per cent are from 40 to 60 years old. Except for a few men newly located in Iowa and who have not yet been classified by the county societies, there are only 56 physicians under 40 years of age who are eligible to membership but do not belong. That means that 89 per cent of this younger group do belong. In the 40 to 60 group, 86 per cent are members, while of those over 60 only 67 per cent belong to organized medicine. There are 232 of these eligible non-members over 60 and it seems likely that some are at least semi-retired and that they might properly be listed as "not in practice." In any event, attention should be directed largely to the total of 266 physicians under 60 who are eligible but not members. If a considerable number of these can be taken into membership during the coming year, it may be felt that the maximum possible revenue from dues is nearly approached.

The state office has secured or been instrumental in furnishing scientific papers and programs for 39 county or district medical societies during the past year, many of them being emergency calls in which the effort involved and the service rendered are considerably enhanced. The scientific program bureau of the State Society also had an active part in the arrangements for the two post-graduate courses conducted in Mason City and Waterloo during the late winter. One of the purposes in presenting these two courses was to gain experience as to their usefulness and the problems involved, so that future plans might be made accordingly. The crowded classes, the high attendance percentage, and the apparently unanimous wish of the members to continue such work and extend it into other fields, indicate that serious consideration should be given to a statewide extension of similar post-graduate education.

Requests for physician speakers to address lay audiences have continued to come in, although no active campaign has been made to secure such requests. Forty-four lay health talks were made by officers or members of the State Society, having been booked through the state office. This is, of course, but a small part of the total number of such talks made throughout the state during the year by members of the society and which were arranged for directly by the local organizations, but the booking of dates through the central office is a stimulus to such calls for local physicians to speak upon health and medical matters. A considerable number of Iowa physicians have already indicated their willingness to address lay audiences and others are being added to the list, data on various health and medical problems which is in readily usable form for lay addresses is being collected, classified and sent out upon request to our speakers. A definite offering of health and medical talks to the various lay groups and organizations could now be made and would undoubtedly secure a large volume of calls.

In accordance with the suggestion from the American Medical Association, the request of its Woman's Auxiliary, and the authorization of the House of Delegates of the State Society, assistance has been rendered to the Woman's Auxiliary of the Iowa State Medical Society with the result that gradual but definite progress is being made toward effecting a statewide organization. Seven local societies are now organized, definite provisions have been made for a meeting of the auxiliary during the annual session, and the state officers have a program for extension throughout the state. In this connection a leaflet regarding auxiliary activities was prepared in the state office, which is not only being widely used throughout the state of Iowa but has been used in other states and by the Auxiliary of the American Medical Association.

As one of the definite steps in extending to the laity the cancer education program which was started amongst the profession last year, the state office has cooperated with the health committee of the Iowa Federation of Women's Clubs which has adopted as its principal project for the current biennium a program of having each of the 40,000 club members secure a complete physical examination. The bulletin sent out to every club member in the state read in part as follows, "1. Examinations are to be made by the regular family physician. 2. The examinations are to be paid for by the club member examined and the physician is expected to receive full compensation for his service as determined by the standards in the community and the extent of the examination. 3. A report card which the club member may use in securing credit for the examination must be signed by the examining physician." A standard certificate of examination for the examining physician to sign was prepared in the state office and published by the Iowa Tuberculosis Association. Beneath the line above which the physician signs is a second line reading "Member of.....County Medical Society."

Increased services given to committees, officers and members during the past year were for the most part rendered through the state office and the personnel therein; but a considerable expenditure of time, energy and money went to attendance at meetings of societies and committees. Especial credit should be given to President Peck and Councilor Chairman Smith for the extraordinary amount of time and attention which they have given to visiting county societies. The Medical Economics Committee and especially the Committee on Medical Education and Hospitals should be recognized for the exceptional sacrifices made, the members of the latter having devoted the equivalent of two full weeks of time to the work of the committee, in addition to the hours spent miscellaneously by each member in his own office. Your managing director has attended sixty-two meetings of various committees, organizations or medical societies during the past year. I was accompanied by one or more officers of the State Society on every trip, except in two instances where circumstances made it impossible. Dr. Peck attended

thirteen of these meetings and was also present at some sixty others. Dr. Smith went on twenty-one of these trips and also attended twelve others.

Thirty-seven of the sixty-three trips were at night. In almost every instance the return was made the same night so that there was very little interference with regular office hours. Thirty-nine of the sixty-three trips were made to county or district medical societies. At thirty-six of these meetings legislative problems were discussed in detail and at five of them local political conditions were thoroughly discussed and definite actions planned. The total traveling expenses for the thirty-nine societies thus visited was \$636.39, which is about \$15.00 per trip or \$7.50 per visitor, since there was an average of at least two per trip.

Fourteen trips were made on account of various committees; two trips to Chicago and several to Iowa City are included, and the total cost was \$231.21. Ten trips were on account of other organizations before which one or more officers of the State Society appeared, such as the Parent Teachers Association, the Woman's Auxiliary, the state veterinarians, etc., and the total cost of these was \$44.97.

These various trips, especially those to county and district societies, play a very definite roll in rendering direct service to the societies and members of this organization. Sixteen times during the past year we have been called to confer with county societies which were contemplating a contract with the board of supervisors for the care of the indigent sick. In the state office is maintained as complete a file as possible of all such contracts and other information which will be helpful in this field. Interest in this solution of a difficult problem is increasing throughout the state and two new contracts were completed during the past year, Scott County for \$12,600 and Mahaska for \$1,800. In several other counties the project is well under way. During the year approximately 150 specific services involving generally the securing of information and the writing of letters, immediately resulted from discussions or personal conferences in the various societies visited.

In recent months there has been an increasing number of requests for information and service in the field of the economics of private practice. Information about and evaluations of various commercial collection and credit agencies have been frequently requested. Surveys as to the activities of county societies in operating credit and collecting agencies have been asked for; and there is a growing demand for data on and discussions of other business problems connected with private practice. It is thus evident that we have here a definite demand for service in a new field which could be developed under the Medical Economics Committee.

It might be possible to survey and rate the various commercial agencies offering services to the physicians of Iowa; and certainly it should be possible to continue the collection of data regarding the economics of private practice, to secure the preparation of papers covering various phases of the field, to promote society meetings devoted to this general subject

and which might even be organized to the point of some type of extension education possibly from the state university. Any program which the State Society pursues based upon the policy of service to its members, should take into serious consideration the above possibilities.

The amount of time and energy and the efficient efforts which the presidents, secretaries and deputy councilors of the majority of the county societies, as well as the officers and committees of the State Society, have devoted to the cause of organized medicine during the past year not only sets a high mark for unselfish service but is surely a continuous inspiration to your paid personnel. The success of a central office in rendering real and lasting service to the society must depend upon proper guidance from state officers and committees and the loyal efficient cooperation of the component units with the state organization. The specific accomplishments of Dr. Peck's administration and the general enthusiasm and good will which seems to prevail throughout the society, have made the work of your managing director such a source of satisfaction that I cannot but end my report with this word of personal appreciation.

Vernon D. Blank, Managing Director.

Reports of Standing Committees

REPORT OF MEDICO-LEGAL COMMITTEE

Under the head of Standing Committees, Dr. Frank A. Ely, Chairman, presented the report of the Medico-Legal Committee, which upon motion duly seconded, was discussed by Dr. Oliver J. Fay and Dr. Thomas A. Burcham, after which it was accepted and placed on file.

House of Delegates, Iowa State Medical Society:

The Medico-Legal Committee of the Iowa State Medical Society respectfully submits the following preliminary report for the year 1929-30. During the past year, four new threatened malpractice suits have been referred to our committee, and arrangements made with Attorney Charles M. Dutcher for settlement or defense. During the past year, through Attorney Dutcher, seven malpractice suits previously pending have been disposed of.

It will be observed that fewer threatened suits have been reported to our committee this year than during any previous year for some time, but this does not indicate that fewer have occurred among the profession, owing to the fact that not infrequently physicians carrying liability policies, report directly to the insurance companies without notifying our committee. This has been brought about by the fact that the State Medical Society no longer pays for the defence of claims brought against its members who hold policies in defence companies.

In many respects there has been little of interest in the activities of your committee during the past year so that there is very little to report. We wish, however, to bring to your attention one or two instances which have come to our attention and which are worthy of comment, and consideration owing to the

fact that they involve not only the safety of the medical profession, but public health as well.

In one of our Iowa villages a rather serious epidemic of typhoid fever was experienced. A member of the regular medical profession in an attempt to assist in locating the origin of this epidemic secured a stool and specimen of urine from an employee of a local dairy. These specimens were forwarded to the pathological laboratory of the State University, and upon receipt of a report from said laboratory indicating the presence of typhoid organisms in said specimens, the physicians reported the same to the proprietor of the dairy, who in turn, discharged the employee from whom the specimens were obtained, because of his being a typhoid carrier. As a result of being discharged from his position, this employee brought suit for slander against the physician who secured the specimens for bacteriological examination.

In preparing the defence in this case, Attorney Dutcher was embarrassed by the facts that from a legal point of view, it was very difficult to trace the identity of these specimens from the time of their collection to the time of the reception of the reports on the same by the local physician. You are probably aware that for legal purposes it is necessary to establish a definite continuity of identification of such specimens and to pin the responsibility of their examinations upon definite laboratory workers who can personally vouch for the identity of the specimens and their findings. It is only necessary to call your attention to the fact that there should be some legal recognition of the reliability and authenticity of the findings of the laboratories doing public health work in order that responsibility and censure be removed from those who are trying to safeguard public health. It is obvious that as more and more health restrictions are coming to be imposed upon the public, a greater responsibility devolves upon local physicians and there is no inherent reason why numerous duplications of this threatened suit may not occur unless some definite rules, legislatively enacted, shall be laid down.

During the year another somewhat similar instance has come to the attention of your committee in which a suit for malpractice was brought against a physician alleging that a vaccination performed upon a school teacher was the ultimate cause of a rheumatoid arthritis. It seems that a certain school board in one of our Iowa villages acting in conjunction with the local health authorities, issued an order subjecting all of the school teachers to vaccination for smallpox. One of the teachers protested, but finally submitted to the procedure. As far as we have been able to determine, the vaccination was performed in the usual and customary manner. Sometime subsequent to vaccination, this teacher developed a severe sore throat and later exhibited also the clinical symptoms of rheumatoid arthritis. Claiming that the vaccination was the cause of her trouble, she made a complaint to her local school board, which very foolishly made a lump-sum settlement with her in order to avoid legal complications. Having been thus successful, she in

turn brought suit against the physician who performed the vaccination. You will see from these two instances that there is need for more legislative protection with regard to such procedures as have been involved in these two instances.

In a recent conference with Attorney Dutcher, he suggested that some legislation will be required in order to protect the medical profession from such annoyances and indignities as have been occasioned in the foregoing instances.

For your enlightenment, it may be well to outline some of the features which of necessity must be incorporated in the health laws so as to establish some legality of the reports made by local health laboratories and those of the State University.

(1) There must be designated some specifications for the reception, labeling, and identification of specimens obtained. In all probability this will have to be made obligatory upon local health officers.

(2) The specimens, after having been obtained, and placed in their containers, must be shipped and vouched for in such a manner as to remove all possible doubt as to the authenticity and identity of said specimens.

(3) There must be some means by which the findings of the laboratories can be admitted in evidence without necessitating the presence of the laboratory worker or workers who examined said specimen. In short, it is necessary to have legislation authorizing certain laboratories to make examinations necessary to the maintenance of public health and have their reports received in evidence. Up to the present time, it has been generally conceded that laboratory reports coming from the State University were beyond question, but it seems that from a legal point of view, this is not the case.

Inasmuch as the framing of a bill correcting the evils just referred to will involve many technical points of law and will necessitate some detailed research with respect to the laws as they now exist, your committee wishes to be authorized to instruct Attorney Dutcher to investigate this matter and outline the details of a bill intended as far as possible to provide for the situation. In reality this work should be done by the State Board of Health, but inasmuch as the matter is of vital importance to every physician in Iowa, it is up to the State Medical Society to see that in one way or another the above provisions be made.

F. A. Ely, Chairman.

REPORT OF COMMITTEE ON SCIENTIFIC WORK

The report of the Committee on Scientific Work was then presented by the President, Dr. John H. Peck, who stated that the program contained the list of scientific papers and clinics to be presented during the coming days, and that the list of guests this year included many outstanding physicians of national and international reputation. President Peck also took this means of thanking all those who had assisted him in bringing the program to a successful fruition.

REPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION

The report of the Committee on Public Policy and Legislation was presented by its Chairman, Dr. Thomas A. Burcham, who stated that the same was fully outlined in the handbook before the delegates and, after elucidating upon some of the outstanding phases of the report—particularly in reference to the licensing of hospitals—moved that the report be accepted and placed on file. Upon being duly seconded and there being no objections, the Chair declared the Committee's report accepted and ordered the same placed on file.

House of Delegates, Iowa State Medical Society:

On account of there having been no session of the Legislature last year, the Committee on Public Policy and Legislation has nothing to report in regard to bills before the Legislature. These matters were all reported at the last annual meeting in Des Moines.

The Committee desires to bring before the House of Delegates various matters which have been brought to its attention by different physicians and organizations in the State of Iowa. The Committee has received many communications with reference to the passage of a Basic Science Law. There are many physicians in this state who believe that we should undertake to pass a Basic Science Law during the next session of the Legislature. The Legislative Committee has endeavored to collect material and distribute it to the County Societies so that they will be familiar with all the points in the Medical Practice Acts of the various states, and especially with those of Iowa. We distributed this material so that it might form a basis of discussion in the House of Delegates so that the Legislative Committee could be instructed in regard to the desires of the Society in this matter.

The House of Delegates should instruct the Legislative Committee, first, to undertake the passage of a Basic Science Law; or second, to revise the present Medical Practice Acts, or third, to seek the passage of a single Medical Practice Act.

Included in this report is a copy of a report made by Herman B. Carlson, Inspector, working out of the office of the Health Commissioner. This report is incorporated herewith to give you an idea of the difficulties that Mr. Carlson has encountered in trying to collect information and gather evidence in prosecuting violations of our present practice acts.

April 18, 1930.

My dear Mr. Blank:

As per your request, I am submitting herewith a resume of my work in connection with violations of the Medical Practice Acts since taking over the position as inspector, provided by Section 2217-C1 and 2217-C2, Code 1929. Section 2217-C1 is as follows:

"Health Department Inspector. There is hereby created the position of health department inspector who shall be attached to the state department of health and who shall be appointed by the commissioner of health of the state of Iowa. The health department inspector's duties shall consist of in-

vestigating all violations of title VIII, Code of Iowa, 1927, securing all available evidence and reporting to the department of health."

You will note that the foregoing section provides one inspector only to take care of the violations for eight professions, namely, medicine and surgery, osteopathy and surgery, podiatry, chiropractic, nursing, dentistry, optometry and embalming. There are ninety-nine counties in this state and many healthy violators in each of the eight professions. This does not include quacks of all kinds, and you no doubt will agree with me that the inspector has many duties to perform.

Very few laws on the statute books are perfect, that is clear and unambiguous, naturally we can assume that the laws pertaining to the practice of medicine and surgery in themselves are not flawless. It is difficult to enact a law, especially one of this type and character, one which is designed to eliminate those persons who would invade the realms of medicine by practicing any form of the healing arts in this state without first securing from the state department of health a license to so practice. In another part of this report, I will make suggestions for changes in the law, and such additions which I deem necessary to better carry on our law enforcement activities.

How I Prosecute the Case in Court to Final Determination

Knowledge of a violation comes to the inspector, either from personal knowledge or through information given the state department of health by licensees of the several professions. As it is the policy of the department at this time to first warn the violator to desist, the inspector usually takes the matter up with the violator advising him of his infraction of the law and in a courteous, polite manner requests him to stop his illegal practice. In a good many cases the violator ceases his unlawful practice without any further trouble. In other cases the violator takes the matter up with an attorney for fear that the state health department may be demanding him to cease doing that which he feels he has a legal right to do. If the violator quits the business or leaves the state, all is well and good; however, if he continues to ply his trade or chosen calling, as some declare, the inspector then visits many of the licensees of the different professions in the vicinity where such illegal practice has been going on, and with their assistance and cooperation secures names of patients who have been treated by the said violator. Next the inspector visits the patients, securing statements from them if he can, to the effect that the violator diagnosed, treated in one way or another, or prescribed medicine for them. The inspector then examines the evidence, and if sufficient according to rules of law and evidence, he immediately takes such action as he deems necessary to expedite prosecution. According to the code, the inspector is required to secure all available evidence in a given case and report to the department of health. In many cases, before submitting the evidence to the department of

health, the inspector files information against the violator for his arrest and brings the case to the attention of the County Attorney, who in turn presents the case for consideration of the next convening grand jury to determine whether or not an indictment shall be returned. In this way the inspector has the wheels of justice moving before he returns to the office of the state department of health. The commissioner is then advised of the preliminary steps taken by the inspector; and as provided by Code Section 2497 and 2527, the commissioner makes formal request of the Attorney General that he institute, in the name of the state, proper proceedings against the person so charged. The evidence procured by the inspector, in its entirety, is turned over to the Attorney General, along with the formal request. The Attorney General then reviews the evidence and proceeds either by criminal action or by injunction.

Since taking over the duties as inspector with the department of health, no case wherein action has been instituted has been lost by the state. In some cases where the evidence of illegal practice has been submitted to the commissioner of health and he in turn has requested the Attorney General to institute proper action against the person charged with violating the practice acts, instead of criminal prosecution against the defendant, the Attorney General may feel that injunction proceedings will do more good, sometimes owing to the fact that he feels the state may not secure conviction before a jury, due to the friendliness of the people in the community towards the violator. Injunction cases are tried before a judge of the district court, criminal actions are tried before a jury. As a general rule, in criminal actions, the County Attorney presents the case for the state, however, in injunction proceedings, the Attorney General appears for the state in person. A court will grant an injunction where illegal practice is shown, but a jury, with the same evidence adduced, in the criminal action may or may not find the defendant guilty. Whether we proceed by injunction or criminal action depends upon the nature of the violation, the friendliness of the citizenry toward the violator and his standing in the community. All these things are taken into consideration before the Attorney General decides which course is best to pursue. He then takes such action as he deems proper. You will note that the inspector's duties as provided by Section 2217-C1, are completed when the evidence he has procured against a violator has been handed to the commissioner. However, to expedite matters the inspector has acted beyond the scope of his authority, in that he has personally filed information against violators, appeared on his own initiative before grand juries, and at all times, he has been present during the trial of cases.

Suggested Changes of the Medical Practice Act and Additions

I have made a thorough study of the Medical Practice Act from the time I took over the duties as inspector and have run across many different kinds of violations with which to test it. The present law, without doubt, takes care of:

1. Unlicensed medical practitioners, which includes "quacks" of all kinds.

2. Magnetic healers, naturopaths, naprapaths, in fact all other forms of healing the sick not recognized by statute. Of course, all other practice acts prohibit the practice of medicine and surgery, except as authorized by statute. The exception is Section 2554 pertaining to "osteopathy and surgery."

Abortion

I have been requested many times by prominent physicians in all parts of this state to secure evidence against well known abortionists. Reports indicate that every city has one or more. Section 12973 of the Code states that it is a felony for any person, with intent to produce the miscarriage of any woman, wilfully administer to her any drug or substance whatever, or, with such intent use any instrument or other means whatever, unless such miscarriage shall be necessary to save her life. In a recent case decided by the Supreme Court of this state, namely, State of Iowa against Dunkelberger, Judge Evans speaking for the court, stated that if a physician performed an abortion to save a girl's life, that the testimony of a layman contradicting that of a physician would not be accepted, but that in order to convict a physician for performing an abortion, an examination would necessarily have to be made by another physician, say possibly twenty-four or forty-eight hours before the abortion was performed, and this physician stating that when he made the examination the woman was in good health and could have given birth to a child without injury to her health. It would be a very rare case where a woman was first examined by a physician and within a short time thereafter an abortion was performed on her by another physician. As a general rule where the principled physician is asked to perform an abortion, a negative reply is given the caller and in this way no examination is made, hence there is no available expert medical witnesses in most cases to overthrow by contrary evidence that which would be given by the physician charged with performing an abortion.

A section should be added to the general provisions of the Practice Act, making it *prima facie* evidence against any physician aborting a female, except it be done to save life and performed in the presence of another licensed physician.

Physician Defined

Paragraph 5, Section 2181 is as follows:

"Physician" shall mean a person licensed to practice medicine and surgery, osteopathy and surgery, osteopathy, or chiropractic under the laws of this state; but a person licensed as a physician and surgeon shall be designated as a "physician" or "surgeon", a person licensed as an osteopath and surgeon shall be designated as an "osteopathic physician" or "osteopathic surgeon", a person licensed as an osteopath shall be designated as an "osteopathic physician", and a person licensed as a chiropractor shall be designated as a "chiropractor".

The above quoted paragraph, without doubt, clearly defines the meaning of the word "physician"

and clearly states the designation to be used by the different practitioners.

Licensing of Hospitals and Inspection

It is my opinion that the legislature should be required to provide a statute whereby the Board of Health or Department of Health would license all hospitals within this state, the license to be revocable and to be for a period of one year. The license fee should be very nominal, say \$1.00, and in this way it would permit the inspection at least once or twice each year of every hospital in this state and if conditions were such as to warrant the revoking of a license it would permit the department to take the necessary steps to do so.

Under our laws no person can offer for public service any jack unless he has procured from the department a certificate of soundness; to manufacture or sell hog serums a license must be obtained from the Department of Agriculture, and the premises upon which the business is carried on is subject to state inspection. Hotels, restaurants, bakeries, bottling works, canning factories, slaughter houses, meat markets must have a state license and are also subject to inspection. Why should not hospitals and institutes used for the care of the sick be licensed and inspected. The state by legislative enactment should establish a minimum standard for hospitals which would be maximum in effect, thus promoting better hospitalization and at the same time permitting state inspection. If we had such a law on our statute books the Baker Institute of Muscatine, Iowa, would never been able to have had a beginning.

Section 2539 is as follows:

"Persons not engaged in practice of medicine. The preceding section shall not be construed to include the following classes of persons:

1. Persons who advertise or sell patent or proprietary medicines.

2. Persons who advertise, sell, or prescribe natural mineral waters flowing from wells or springs.

3. Students of medicine or surgery who have completed at least two years' study in a medical school, approved by the medical examiners, and who prescribe medicine under the supervision of a licensed physician and surgeon, or who render gratuitous service to persons in case of emergency.

4. Licensed podiatrists, "osteopaths," "osteopaths and surgeons," chiropractors, nurses, dentists, optometrists, and pharmacists who are exclusively engaged in the practice of their respective professions.

5. Physicians and surgeons of the United States army, navy, or public health service when acting in the line of duty in this state, or to physicians and surgeons licensed in another state, when incidentally called into this state in consultation with a physician and surgeon licensed in this state.

6. Exemption of students. The exemption of students of medicine, surgery, or obstetrics having prescribed but limited qualifications, and prescribing under the supervision of preceptors, does not embrace one who is engaged in healing the sick and who, on various occasions, consults with and receives medical advice from other duly authorized practitioners."

Permit me to call to your attention Paragraph 3 of the above quoted section. This paragraph should be changed so as to read:

3. Students of medicine or surgery who have completed at least two years' study in a medical school, approved by the medical examiners, and who in the continuous pursuit of their studies prescribe medicine under the supervision of a licensed physician and surgeon, or who render gratuitous service to persons in case of emergency.

I bring this to your attention for the reason that this department has received complaints to the effect that certain persons are practicing medicine without a license. Investigation discloses that the violator has had more than two years of medicine but did not complete his course. The violator explains that his practice is legal under the above quoted paragraph. No doubt the intention of the legislature is as I have rewritten Paragraph 3, but why not have it say what it means.

Difficulty of Prosecution

1. One inspector to take care of violations of eight professions.

2. Inspector is required to handle all correspondence concerning violations; render licensees opinions concerning certain phases of the practice acts; personally secure evidence on violators; appear before grand juries; assist county attorney and attorney general in prosecutions; be present at all conventions of the different professions; make speeches; make annual, semi-annual and other reports required by the professions; be present when case is tried in District Court.

3. The 43rd G. A. in creating by legislation the position of health department inspector, did not provide funds with which to secure evidence. Funds for the procuring of evidence are a fundamental necessity.

4. Inspector unable to be in more than one place at a time.

5. Reluctance of licensees and others to give information.

6. Licensees give indefinite information.

7. Friendliness of citizenry toward violator.

8. Apparently each of the eight professions feel that infraction of law in their profession should be disposed of immediately, regardless of cases on hand in the other seven professions.

I have gone over the Medical Practice Act very carefully and I am unable to find anything particularly wrong with it. Trust that the suggestions, changes and additions meet with your approval. I am attaching herewith many of the investigations concerning violations of the medical and other practice acts made by me which should give you an idea as to my work.

Sincerely yours,
Herman B. Carlson, Inspector.

Investigations

Below is a summary in condensed form of Mr. Carlson's investigations in the field of medical practice. In addition to these twenty-two cases, he handled thirty-five others in the fields of dentistry.

nursing, optometry, podiatry, osteopathy and chiropractic. The fact that there is much more than any one man can do and that almost 40 per cent of all cases were medical, would seem to indicate that we might well interest ourselves in additional personnel.

C. A. PASTNER—Shenandoah—Practicing medicine without a license.

September 18, 1929, interviewed several doctors in Shenandoah and Clarinda. Found charges true. Interviewed subject and his attorney. Subject promised to leave state. Was shielded by H. C. Boyer, M.D., Council Bluffs. Subject did not keep promise and continually made itinerant visits to same towns. November 21, 1929, Carlson filed information before Judge Fischer, Judge Superior Court, at Shenandoah. Subject arrested a few weeks later and is now out on bond. County Attorney has recommended that charges be dropped if defendant allows state permanent and perpetual injunction. Injunction granted, District Court, Page County.

O. A. KINSEL—Tipton—Practicing medicine without a license.

November, 14, 1929, Carlson investigated charges. Subject calls himself doctor, advertises as such, has downtown office and maintained office hours. Subject is or claims to be a Naprapath. Attorney General filed petition asking for temporary injunction. December 30, 1929, hearing on application for injunction. Subject left state, judge did not render any decision as yet.

DR. C. H. HANSEN—Eagle Grove—Practicing medicine without a license.

July 31, 1929, August 1, 1929, and August 5, 1929, investigations were made. Dr. Hansen had heretofore been a licensed physician in this state but his license had been revoked for reason that he had been convicted of violating the Harrison Narcotic Act. Injunction also issued against him. Case was brought up on hearing for contempt. Dr. Hansen was found in contempt of court and ordered to leave state in lieu of payment of fine. Dr. Hansen approved the order and complied with same.

W. F. HUGHEY—Ames—Practicing medicine without a license.

Convicted in District Court of Story County and fined \$750. Subject has gone from the state.

A. J. KOOB—Vinton—Practicing medicine without a license.

Early in July Carlson filed charges against subject. KooB pleaded guilty to a charge of selling medicine as an itinerant without a state license. Was sentenced to ten days in jail and ordered to leave town.

R. F. KNIFFER—Des Moines—Practicing medicine without a license.

This man "Cancer Specialist." Evidence secured by Carlson sufficient to indict and convict. Found guilty as charged by a jury in District Court of Polk County, November 18, 1929. Judge Ladd fined him \$400 and costs.

S & G LABORATORY—Waterloo—Practicing medicine without a license.

This company advertises nationally and claims to be doing miracles in venereal work. July 27, 1929, made investigation and found that one Dwight De La Sheldon receives mail for the company at Waterloo. Company has ceased its operations and its status is now that of an abandoned enterprise.

L. D. McMICAL—Waterloo—Practicing medicine without a license.

March 6, 1930, this man charged by Carlson with practicing medicine without a license. Defendant pleaded guilty and was fined \$100 and costs. Inspector received affidavits of a number of people in Earlville, who had been treated by McMichael.

DR. GLODEN—Hubbard—Practicing medicine without a license.

Subject was once a chiropractor but could not procure license when their profession was legalized by statute. Subject practiced a good many years in Hubbard under the supposed supervision of an M.D. Carlson investigated and subject has retired from business.

O. E. FIESTER—Oelwein—Practicing medicine without a license.

October 19, 1929, charges investigated and found authentic. Subject promised to quit. Matter was taken up with his attorneys at Waterloo. Subject left state.

MRS. ROSA BOOKOUT—Dexter—Practicing medicine without a license.

October 14, 1929, charges investigated and found authentic. Consultation was had by Carlson with subject and her attorney. Mrs. Bookout admitted charges and promised to quit.

W. D. BROWN—Mt. Ayr—Practicing medicine without a license.

October 3, 1929, checked matter over with all physicians in Mt. Ayr. Subject admitted technical violation. Promised to desist. Subject used degree M.D.

PETER MAVRELIS—Cedar Rapids—Practicing medicine without a license.

November 13, 1929, made investigation. Subject has several different medical preparations. Calls preparations Marveline and has it registered with the U. S. Government. Subject also has questionnaire to be filled in by patient to determine dosage. Compounds are not put up by a registered pharmacist. This man will quit, I am certain, in the near future. He is under the erroneous impression that government registration of Marveline is his protection.

LESTER TILTON—Clinton—Practicing medicine without a license.

August 29, 1929, investigated and found charges correct. Subject is cancer specialist. Had conference with M.D.'s and advised that Tilton was out of the state and had no intentions of returning. Further investigation reveals that he practices somewhat in Clinton but mostly in Chicago. Petition by Attorney General for permanent injunction now on file in Clinton County. No hearing has as yet been had. We have no direct evidence and to procure the same will entail quite an expenditure of money. State Medical Association has not given Health Department any evidence money. Case requires a lot of special investigation.

E. J. TURNFALL—Shenandoah—Attempted to practice medicine to a certain extent.

Matter was investigated and activities of subject curtailed by giving proper interpretation of medical laws.

R. W. SCHULTZ—D. O.—Mason City—Practicing medicine without a license.

Case investigated and found that subject removes hemorrhoids by the injection method. Section 2554 is difficult of determination. Statute should more particularly define. Attorney General's viewpoint in this case is that we should not attempt to preclude osteopaths from using this method of treating piles under the statute as it now stands.

REV. GEORGE HAKEN—Titonka—Practicing medicine without a license.

September 13, 1929, investigated case and found he treats his patients with cold baths and diet. Have names of those treated by subject, also affidavits to the effect that he treated persons for ailments. Action will be commenced asking for permanent injunction in the near future.

LOUIS HANSMAN—Maurice—Practicing medicine without a license.

July 18, 1929, investigated matter. Subject is local druggist. Makes surgical dressings and uses salves in treatment of eczema, ulcers and varicose veins, etc. Case was once before grand jury but they failed to indict. Unfavorable publicity has to a certain extent curtailed his activities. Case needs further investigation but have not been able to take care of it.

EARL WELLS—Grant—Practicing medicine without a license.

Subject is an Indian herb doctor. Itinerates from place to place. July 23, 1929, report came to the department that subject, along with about fifteen of his people, were encamped near Grant and doing big business. August 1, 1929, made investigation but found Indians gone. No complaints have been made since and Carlson has not been able to locate them. Dr. Montgomery of Grant was of the opinion that they knew I was coming and that they probably left the state.

DR. H. H. NICHOLS—Marshalltown—Unprofessional conduct, such as to warrant the revocation of license to practice medicine.

September 10th, investigation made by Carlson. Had conference with Dr. A. C. Conaway. Subject has been in a lot of scandal. He is County Coroner. Subject was principle in an affair which no doubt would be considered unprofessional conduct by any court. After this affair he immediately left Marshalltown and was supposed to stay away. In a short time, however, he returned and investigation proves that he is still up to the same tricks. Case requires a good deal of attention and further investigation, time for which I have not had.

C. A. REGISTER—Ames—Practicing medicine without a license.

September 9, 1929, made investigation and found charges to be true. Subject calls himself Naturopathic Physician. On being confronted by facts subject promised Carlson to get out of the business. Favorable decision for the state in the Hughey case seems to have a great deal of effect on him. Further investigation reveals that he has complied with his promise.

DR. A. J. BEYERS—Carroll—Unethical practice.

Information came to this department that subject charged excessive fee for treatment of cancer. Subject has private hospital in Carroll. Made investigation and evidence insufficient to start action of any kind.

If the House of Delegates does not feel inclined to instruct the Legislative Committee to undertake the passage of a Basic Science Law a careful study of the Medical Practice Act of Iowa should be made for the purpose of rewording and clarifying it. The Act pertaining to the practice of medicine is fairly clear.

The exception to the Medical Practice Act of this state, allowing others to so practice to a limited degree, is contained in the following section, namely 2554 of the Code of 1927:

"Drugs and operative surgery prohibited. A license to practice "osteopathy" or "osteopathy and surgery" shall not authorize the licensee to prescribe or give internal curative medicines and a license to practice "osteopathy" shall not authorize the licensee to engage in major operative surgery."

This section of the act, the practice of osteopathy and surgery, is very indefinite and indeterminate as to its correct meaning, consequently several opinions have been written on the subject and much misunderstanding exists among the professions and has caused those concerned with law enforcement no end of trouble. This section of law, as it either does or does not infringe on the practice of medicine and in violation of the medical practice act, should be changed so that it may be readily understood and interpreted. Some say the law means what it says; others say the phraseology is wrong and not so intended. You will at once recognize that there is a question as to just what medicine may be prescribed by an osteopath. No doubt the statute prohibits them from prescribing "internal curative medicines" but just what the legislature had in mind as a curative medicine is difficult of determination. It is the opinion of many, that the kind of medicine that an osteopath may give or prescribe should be more clearly and particularly defined by legislative enactment. The heading of the section itself "Drugs and operative surgery prohibited" is entirely contradic-

tive of the subject matter of the section itself. The section provides that an osteopath may not engage in major operative surgery. If that be true then does it follow that an osteopathic surgeon, which the statute does not mention may do all kinds of surgery? Just where the line is to be drawn between minor and major operative surgery is a question. The legislature should more particularly define the extent of surgery that an osteopath or osteopathic surgeon may perform.

There have been many complaints that osteopaths were using internal medicine in the treatment of disease. In 1924, the Commissioner of Health, Dr. Rodney P. Fagen, asked the opinion of the Attorney General as to whether or not opium and its derivatives were curative medicines. The following letter is the opinion given at that time, which opinion has not been changed as indicated by the second letter:

OSTEOPATHS—Administering Morphia and other narcotics—Law does not prohibit Osteopaths from administering hypodermics but only prohibits them from administering "Internal Curative Medicine."

May 14, 1924.

Rodney P. Fagen, M. D.
Secretary, Department of Health,
Building.

Dear Doctor:

This will acknowledge receipt of your letters of April 18th and February 13th in which you requested the opinion of this Department as to whether Osteopathic Physicians and Surgeons regularly licensed in accordance with Chapter 77, Laws of the 39th General Assembly, are authorized to administer Morphia or other narcotics in their practice, or are limited to the use of external medicine only.

In response to your request will say that the language of Section 15, of Chapter 77, Laws of the 39th General Assembly, is not very determinative in character as to just what medicine may be prescribed by an Osteopath. The statute prohibits them from prescribing "internal curative medicines." You will at once recognize the fact that Morphia and the ordinary narcotics administered by physicians are not curative, and are not so intended. These are usually administered by way of hypodermic and are to give temporary relief or stimulation. Just what the legislature had in mind as a curative medicine is difficult of determination, and what particular kinds of medicine might be administered, should be more particularly defined by legislative enactment. Hypodermics can neither be classed as internal nor curative.

Therefore, it is my view that you should not attempt to preclude osteopaths from administering so-called hypodermics under the statute as it now stands.

Yours very truly,

Assistant Attorney General.

November 27, 1929.

This will acknowledge receipt of your letter of November 26th relative to Osteopaths handling toxins, anti-toxins, serums, etc.

This department, of course, could render you a later opinion, but it would be to the same effect as the copy that was sent you last March, as the opinion of this department has not been changed.

Yours very truly,

Assistant Attorney General.

Chiropractic

Chiropractic is defined by our statutes as the "treatment of human ailments by the adjustment by hand of the articulations of the spine or by other incidental adjustments." Many chiropractors in this state are using various kinds of light and electrical treatments along with regular chiropractic treatments. No doubt the chiropractor may treat dis-

eases by manipulation of the spinal column, but may he employ other agencies not necessary to procure the desired adjustment? As the law now stands, a license granted to a chiropractor should entitle him to treat disease by manipulation of the spine but in no other way. He is not expected or required to have the same training and skill in the use and application of other of the healing art agencies. It was never intended by the legislature that the granting of a license to practice chiropractic should entitle the holder to practice all of the other professions listed in the practice acts. It is the opinion of many, that a chiropractor must confine his treatments of diseases to the manipulation of the spinal column and to those treatments which are merely incidental and necessary to such method of treating disease.

Section 2181, Paragraph 5, defines "physician" as follows:

"Physician" shall mean a person licensed to practice medicine and surgery, osteopathy and surgery, osteopathy, or chiropractic under the laws of this state; but a person licensed as a physician and surgeon shall be designated as a "physician" or "surgeon", a person licensed as an osteopath and surgeon shall be designated as an "osteopathic physician" or "osteopathic surgeon", a person licensed as an osteopath shall be designated as an "osteopathic physician", and a person licensed as a chiropractor shall be designated as a "chiropractor."

The above definitely designates the different titles for the different branches of the healing art. In some states, particularly California, a physician and surgeon is required to specify on his letterheads and on his office the branch of the healing art which he represents—the physician and surgeon being designated as an M.D., the osteopath as an osteopathic physician or osteopathic surgeon and the chiropractor as a chiropractor.

The Legislative Committee has asked for a legal opinion as to whether this section of the law would permit the same designation in the state of Iowa. This subject was discussed at some length before the meeting of the Federation of the Boards of Medical Examiners and the majority of the men thought that this strict designation of titles was a very good thing. This is brought before the House of Delegates for your consideration.

The Legislative Committee sent to each County Society in the state a copy of two papers which were read before the Federation of the Boards of Medical Examiners at their Chicago meeting, as well as copies of the discussions of these papers. These papers were sent for the purpose of furnishing material for a discussion before the County Medical Societies so that they might in turn instruct their delegates as to their wishes in regard to a change in the Medical Practice Acts.

The above report is respectfully submitted by the Committee on Public Policy and Legislation for the 1930 meeting of the Iowa State Medical Society.

Thos. A. Burcham, M. D., Chairman.

REPORT OF COMMITTEE ON CONSTITUTION AND BY-LAWS

Dr. Vernon L. Treynor, Chairman, read the report of the Committee, together with its recommendations relative to the proposed constitutional amendments, which under the law had been presented at the last Annual Session and duly published in the July, 1929, issue of the Journal.

Last year a resolution was introduced in the House, by President-Elect Peck, to discard the present Constitution of the Society and substitute one prepared by a committee of the American Medical Association. Your Committee has spent much time and given much thought to these proposed changes, has conferred with President Peck, also with the Chairman of the Council, Channing Smith, and with most of the Past-Presidents of the Society, and with officers of the American Medical Association. As a result, your Committee feels that to do so radical a thing as to discard the Constitution under which our Society has existed for twenty-seven years, and to substitute one supposedly recommended by the American Medical Association would be, at the least, a hazardous experiment, and one which would entail almost endless work in adjusting the present By-Laws to the new Constitution. In brief the proposed changes are of two classes:

NON-VITAL—such as changing

1. the name from Society to Association
2. the purpose of the Society
3. the composition of the Society
4. the abolition of office of two Vice-Presidents

VITAL—The vital changes involve

1. combining of the offices of Secretary and Treasurer and the election of said officer by the Council
2. reducing the Council from eleven to ten members, thus necessitating a re-districting of the state, for which no provision has been made
3. abolishing the office of Trustees
4. forcing on the Council, which is already overburdened with duties imposed by the Society, those additional responsibilities now performed by the three Trustees.

We, therefore, recommend the following:

1. That the name of the Society remain unchanged.
2. That the office of Vice-Presidents be retained.
3. That the offices of Secretary and Treasurer be separately maintained.
4. That the office of Trustees be continued.
5. That all officers of the Society be elected by the House of Delegates.
6. That the councilor districts be changed along geographic or other lines, when certain obstacles have been overcome.

Dr. Charles B. Taylor, a member of this Committee, does not concur in the above recommendations.

Vernon L. Treynor, Chairman.
Tom B. Throckmorton.

After presenting the report, Dr. Treynor then asked that Dr. Tom B. Throckmorton, a member of the Committee, be permitted to give a supplementary report, relative to his findings in comparing the constitutions of sister state medical organizations in the surrounding states, as well as other State Medical Associations and Societies, with the Constitution of the Iowa State Medical Society and the Constitution and By-Laws for State Associations, as prepared by a Special Committee of the House of Delegates of the American Medical Association.

After the findings of the Committee, as shown by these comparisons, had been presented, the Chair ruled that the Committee on Constitution and By-Laws was not a reference committee.

Dr. Vernon L. Treynor then stated that the reason for the report was merely to bring information to the members of the House of Delegates concerning this vital matter and added that Dr. Charles B. Taylor, a member of the Committee, had not concurred in the Committee's report and recommendations.

A general discussion of the reports was then entered into by Drs. William Jepson, Sioux City; Michael J. Kenefick, Algona; Charles B. Taylor, Ottumwa; Thomas A. Burcham, Des Moines; John F. Herrick, Ottumwa; Frank E. Bellinger, Council Bluffs; Channing G. Smith, Granger; Oliver J. Fay, Des Moines, and Tom B. Throckmorton, Des Moines.

At the suggestion of Dr. Oliver J. Fay, that President Peck address the House on this subject, the Chair then called Dr. Gordon F. Harkness, Davenport, First Vice-President, to preside.

President Peck then discussed at some length his feeling in regard to this important issue.

A few remarks were indulged in by the majority members of the Committee, after which Dr. Edward L. Bower, Guthrie Center, moved that the Committee's report be accepted.

Dr. Channing G. Smith, Granger, then asked what bearing the acceptance of the Committee's report would have on the proposed constitutional amendments, to which Dr. Treynor, Chairman of the Committee, replied that it would have no material influence inasmuch as the acceptance of the reports was purely a matter of form and that the proposed amendments would come up for consideration, article by article, at a later hour.

Dr. Bower's motion, after being duly seconded, was put and carried.

REPORT OF THE COMMITTEE ON PUBLICATION

The report of the Publication Committee was presented by Dr. R. R. Simmons, Editor, who stated that inasmuch as the same had been included for consideration in the handbook, he had nothing further to add at this time. The Chair declared the acceptance of the same in the absence of any objection, and ordered it to be placed on file.

The House of Delegates, Iowa State Medical Society:

Since the annual meeting of 1929, certain new departments have been introduced into the JOURNAL of the State Society which, in our opinion, have added materially to the usefulness of this official organ.

During the year, a department devoted to the history of medicine in Iowa has been inaugurated under the able editorship of a special committee appointed by the President of the Society. In this section, interesting historical data will appear from month to month which, in many cases, will epitomize the material which the committee is collecting and compiling for Volume II, History of Medicine in Iowa, as authorized by the Board of Trustees.

Some two months ago, we were fortunate in being able to formulate a plan for the development of a section to be sponsored by the members of the University Hospital Medical Society. In this section will be presented abstract reports of papers relating to clinical research problems or clinical studies and case reports from the hospital section. This material will be selected from programs of the University Hospital Medical Society, an organization embracing all of the professional members of the staff of the State Medical School. It is your editor's conviction that this section will bring the readers of the JOURNAL in more intimate contact with the activities of the College of Medicine of our State University, and will add much to the value of the JOURNAL as an educational medium.

During the past year, through the cooperation of our president, we have been able on frequent occasions to transmit official messages from his office outlining the activities, either accomplished or proposed, relating to the State Organization. We hope to continue this program throughout the coming year.

Due to an increased interest in organized medicine, and the stimulation made possible by frequent contacts between the officers of the State Society and the component county societies, we have been able to increase the section of the JOURNAL devoted to society proceedings, so that it is not at all infrequent that news notes are published from as many as 40 per cent to 50 per cent of the county societies in each issue.

The editor of the JOURNAL wishes at this time to express his sincere appreciation for the hearty spirit of cooperation which has been accorded him on every hand in rendering his labors more effective and in assisting in the compilation or preparation of editorial section of the JOURNAL prepared upon timely subjects and written by special request. In each article of this nature, the author will be given full credit, but your editor wishes at this time to express sincere thanks to all special contributors, since their duty is not an easy one, and often entails arduous labors.

The financial condition of the JOURNAL (reported in detail elsewhere) continues to be quite satisfactory.

R. R. Simmons,
Editor and Chairman of the Publication Committee.

REPORT OF THE COMMITTEE ON NECROLOGY

The report of the Committee on Necrology was then presented by Dr. Channing G. Smith, Chairman of the Council. The Chair called up the House during the reading of the list of the deceased members, after which the Committee's report was received and placed on file.

House of Delegates of the Iowa State Medical Society:

The Council, by a provision in the Constitution, forms the Committee on Necrology which is instructed to "prepare for each session suitable biographical notices of deceased members." We admit that heretofore our duty was neglected and, in the press of other matters, no formal action has been taken in respect to those members of the profession, who have been taken from us during each twelve months.

It is hoped this report will serve as a precedent and that each succeeding year the House of Delegates may see fit to withdraw for a moment from the business of the day to pay some slight tribute to the memory of the dead.

Life at best is a peculiar thing. We live, move, have our being and pass on. Too many lives are moved by the thought of success, either social or financial, and those seeking this material end cannot easily turn aside to interest themselves in the problems of others. Too often the vision of ascendancy circumscribes the entire perspective of life and imprisons one within his own selfish demands.

Not so these departed brothers of ours, for few of them were wealthy, not many of prominence, yet all of them were rich in scientific, intellectual and humanitarian attainments. The thought of personal gain and eminence was subdued in the joy of relieving suffering, pain and death in others.

So this is not an occasion for mourning. We merely pay to those who have gone the deference due their worth. We remember their acts of loving kindness, their deeds of charity and the friendly hand clasp. We have come to realize that theirs was the true spirit of the profession and, though they are gone, this same spirit is a heritage working with us and for us down through all the ages.

So far as we can learn, during the calendar year 1929, there were 60 deaths among Iowa physicians. The average age was 64.2 years, distributed among age periods as follows: 30 to 40, one; 40 to 50, five; 50 to 60, fifteen; 60 to 70, sixteen; 70 to 80, fifteen; 80 to 90, seven. Only one was a woman. The average number of years of practice was 36.7. About 70 per cent of deceased physicians were members of the Iowa State Medical Society. One was an ex-president of the society.

The causes of death were given as circulatory diseases 27, respiratory diseases 8, following operation 4, automobile accident 4, suicide 3, and septicemia, diabetes, uremia, nephritis, carcinoma of liver, asphyxiation by gas, myelitis, 1 each; not given 7.

The complete list is as follows:

Ady, Emmett	Irish, Harry R.
Amy, Harriett B.	Jennings, Henry B.
Anderson, Paul O.	Kessler, Alois
Baker, Charles W.	Kirkpatrick, Wm. J.
Besore, Walter M.	Krout, Jacob B.
Bilby, A. M.	Leshner, H. B.
Brewer, Lewis S.	Linehan, Lewis J.
Brownson, Jason D.	Little, Ernest H.
Burroughs, Edward S.	Lukens, Chanley J.
Chase, Charles S.	Lynch, John W.
Clark, Samuel W.	McColm, Cyrus B.
Cobb, Otis	McGrew, Oliver W.
Cokenower, James W.	Maple, William W.
Conaway, John W.	Peebles, George R.
Conrad, Albert E.	Powers, Thomas E.
Cresap, Roger N.	Reed, David W.
Crowley, Jay M.	Richards, Emmett E.
Danielson, Albert	Robinson, Charles O.
Darey, J. Herbert	Ross, Grant J.
Dean, Fred M.	Rowntree, Joseph W.
Duckworth, John C.	Seybert, Frank T.
Dvorak, Joseph F.	Staggs, William A.
Fee, Richard M.	Stansbury, George W.
Fossellman, Alois N.	Turner, Matthew L.
Gingles, Rush R.	Twining, Edward T.
Gockley, Albert S.	Watson, George L.
Hooper, Martin L.	Waud, Thomas S.
Hoxie, William E.	Wells, Harry L.
Huband, Charles E.	Wescott, LeRoy A.
Irelan, Henry H.	Wood, George B.

Channing G. Smith, M.D., Chairman of the Council.
S. T. Gray, M.D., Secretary of the Council.

The report of the Finance Committee was deferred until the Friday morning meeting of the House, and Dr. Aaron C. Conaway, Marshalltown, Chairman of the local Arrangements Committee, then spoke a few words concerning the arrangements that had been made for the scientific program of the society.

Reports of Special Committees

Under the head of Special Committees the Report of the Medical Library Committee was then called for. Owing to the death of the Chairman, Dr. D. S. Fairchild, Sr., Clinton, the report was presented by Dr. Jeannette Throckmorton Dean, Des Moines, State Medical Librarian. There being no objections, the report was accepted.

REPORT OF THE MEDICAL LIBRARY COMMITTEE

The Medical Library Committee reports in the following statistical summary, the activities and condition of the State Medical Library during 1929-30.

Activities

2,247—Written requests for literature
8,105—Pieces of literature sent out
2,857—correspondence, 1,347 letters and 1,510 cards
490—Telephone Calls for material
1,561—Visitors in Library

7,570—Cards made out for new acquisitions. Book file—800, journal file—151, and reprint file—6,619

503—Given to other libraries through Medical Library Exchange. Journals—201, books—139, and reprints—163

Library Assets

9,086—Number of bound volumes accessioned to April 1, 1929

104—added by purchase during this year

1,019—accession (already in Library)

1,039—gifts

2,162—Total added this year

67—withdrawn

2,095—

2,095—Total number of bound volumes to be added

11,181—Total number of bound volumes in Library March 31, 1930

60,000—Number of single numbers of journals in Library, April 1, 1929

6,674—Added by gift or subscription

66,674—Total number of unbound volumes of journals in Library, March 31, 1930

820—Total number of bound volumes of journals in Library March 31, 1930

6,004—Number of reprints in Library April 1, 1929

2,876—Added by gifts

8,880—Total number of reprints in Library March 31, 1930

In submitting the above statistics the following statement was made by Dr. Jeannette Dean Throckmorton, Librarian of the Medical Department of the Iowa State Library:

"May I express to you at this time my deep appreciation of the splendid spirit of cooperation evinced by the Iowa State Medical Society toward the Iowa State Medical Library. The entire Library is at the service of the entire membership of the State Society, and my personal service as well in looking up medical research."

Conrad R. Harken

Felix A. Hennessy

Committee

The time being 5:35 P. M., a motion was made by Dr. Oliver J. Fay, Des Moines, that the House recess until 8:00 P. M. Seconded and unanimously carried.

EVENING MEETING, TUESDAY, MAY 13

The House of Delegates again met in the Ballroom of the Hotel Tallcorn, and was called to order at 8:03 P. M., by President Peck.

The Chair ruled that inasmuch as a quorum was present, the roll call could be dispensed with.

Continuing under the head of Reports of Special

Committees, the chair called attention to the fact that inasmuch as there had been no activity whatever in the military situation, the Committee had no report to offer, as indicated in the handbook.

REPORT OF COMMITTEE ON MILITARY AFFAIRS

House of Delegates, Iowa State Medical Society:

There has been no activity whatever in the military situation or with the committee.

Donald Macrae, Chairman

Hal A. Spilman

Earl B. Bush

REPORT OF COMMITTEE ON MEDICAL ECONOMICS

The report of the Committee on Medical Economics was then presented by Dr. Thomas U. McManus, Waterloo, Chairman, who stated that the report as published in the handbook contained the Committee's findings relative to the subject of Medical Economics and that there were no additions to be made to the report at this time.

House of Delegates, Iowa State Medical Society:

The problems of medical economics are numerous and of nationwide interest and importance. Cooperating with the American Medical Association is the Committee on the Cost of Medical Care, composed of forty-five members, twenty-three of whom have the degree of Doctor of Medicine. They are all of high business and professional standing. With hundreds of thousands of dollars at their disposal they are devoting five years of most painstaking research before making a report, thus indicating the magnitude of their task.

Your Committee on Medical Economics believes that it was contemplated that they should interest themselves with a few of the problems which are confronting Iowa doctors constantly.

One outstanding economic problem facing the Iowa medical profession is the universal establishment of professional fees equitable to all concerned and commensurate with services rendered. The low fees charged in some communities are inadvertently suggestive of inferior service. The man who sells his services at reduced prices belittles his skill. There is no reason why a visit by the small-town physician should be two dollars plus fifty cents mileage, while the city physician charges four dollars plus one dollar mileage. No one seriously questions but that the skill of the average small-town physician is as great as is the skill of the average city physician, and in suggesting fee bills the average professional skill must control. With these facts in mind your committee have collected the fee bills of various representative Iowa County Societies and have prepared Exhibit "A", which is a composite of these various fee schedules, and recommends their approval by this house of delegates, and their adoption by all component county societies. (See Exhibit "A.")

Equally important with a uniform fee bill is the universal adoption of business methods of collection.

With the widespread extension of credit has come the necessity of greater diligence in collecting unsecured claims. Old accounts decrease in value at a geometrical ratio. In making collections we are forced into new methods by "installment" and "cash and carry" institutions, which keep many of our patients financially depleted. Therefore, the committee recommends that component societies pass resolutions urging all members to send statements not later than the first of the succeeding month, and to use great diligence in securing prompt settlement. For the success of this movement it is desirable, but not essential, that all physicians unite in the project. The resistors will eventually pay the penalty for their own reluctance.

Since the organization of the Economics Committee requests have been made for recommendations covering specific conditions. In compliance with such requests and suggestions the committee recommends that:

1. Vaccination and immunization of school children be done preferably in the physician's office, as such work cannot be done in a sanitary way in the school room, and that, where such work is done en masse, for a brief period (such as a month) and at fixed daily hours, a reduction, but not to exceed 50 per cent of the regular charge be made. In every instance the physician should furnish the vaccine or sera.

2. Health examinations should be made by the family physician for an individual fee, depending upon the extent of the examination; any other method should be undertaken only on approval of the County Medical Society.

3. No member of the Iowa State Medical Society shall contribute free professional services to any hospital, health center, clinic or other health or welfare project, unless both the institution and its activities have been approved by the society.

4. Examinations in connection with 4-H Club health contests, baby health contests, and similar examinations, should be conducted exclusively by members of the County Medical Society upon approval by the County Society, such services to be contributed without charge.

5. No contract for the care of the county poor shall be entered into by individual members until they have the approval of the County Society.

6. Each County Medical Society is urged to devote at least one meeting a year to the consideration of local medical economic problems.

T. U. McManus, Chairman
R. T. Childs
C. S. Cornell
J. C. Donahue
I. E. Nervig

EXHIBIT "A"

MINIMUM FEE BILL RECOMMENDED BY THE IOWA STATE MEDICAL SOCIETY

General Medicine and Surgery

Abscess, opening	\$ 2.00
Amputation, arm or forearm.....	100.00

Amputation, cervix or coccyx.....	50.00
Amputation, hip or thigh.....	200.00
Amputation, finger or toe	15.00
Amputation, leg	100.00
Anesthetic	10.00
Anesthetic, gas	15.00
Appendectomy	125.00
Aspiration, abdomen, chest, knee.....	15.00
Cholecystotomy or cholecystectomy.....	200.00
Colotomy	150.00
Attendance at Court, per day, expenses extra..	25.00
Certificate of Health.....	1.00
Consultation at office.....	2.00
Consultation by 'phone.....	1.00
Decompression, skull	150.00
Dislocation, ankle, shoulder, wrist, jaw.....	25.00
Dislocation, elbow, hip, knee.....	35.00
Dislocation, finger, toe.....	5.00
Dressing wounds	1.00
Enterorrhaphy, entero-anastomosis.....	200.00
Examination, health	5.00
Examination, involving question at law.....	25.00
Examination, post mortem, involving legal investigation	50.00
Fissure	25.00
Fistula in ano, operation for.....	50.00
Fracture, clavicle	30.00
Fracture, radius, ulna, tibia, fibula, maxilla, patella	50.00
Fracture, femur, pelvis.....	100.00
Fracture, ribs, toe, fingers.....	15.00
Fracture, operation for ununited.....	150.00
Fracture, if compound or comminuted 50 to 100 per cent should be added	
Gastro-enterostomy, gastrectomy	200.00
Hemorrhoids	75.00
Herniotomy	125.00
Hernia, strangulated, reduction by taxis.....	25.00
Paracentesis, abdominal, thoracic.....	25.00
Plaster cast	10.00
Resection, elbow, hip, knee, jaw.....	200.00
Resection, rib	50.00
Stomach pump, emergency.....	15.00
Stomach pump, diagnostic.....	3.00
Toe-nail, ingrowing, operation for.....	15.00
Visits, day	3.00
Visits, 9:00 p. m. to 7:00 a. m.....	5.00
Visits, each additional visit in same family.....	1.00
Visits, beyond city limits, regular charge and additional per mile.....	1.00

Genito-Urinary

Bladder, operation	100.00
Bladder, irrigation	3.00
Bladder, segregation of urine.....	35.00
Castration	100.00
Circumcision	25.00
Examination and diagnosis of venereal disease	5.00
Gonorrhea, treatment	3.00
Hydrocele, operation for.....	75.00
Prostatectomy	200.00
Stone in bladder, operation for.....	100.00

Stone in kidney, operation for.....	200.00
Ureters, catheterizing	35.00
Gynecology and Obstetrics	
Cesarean Section	200.00
Curetteage and dilatation of cervix.....	50.00
Hysterectomy	150.00
Delivery, Normal	35.00
Detention per hour after five hours.....	5.00
Version	75.00
Forceps Delivery	50.00
Perineorrhaphy	100.00
Delivery of Placenta.....	15.00
Miscarriage	50.00
Uterine treatments	3.00

Eye, Ear, Nose, Throat

Adenoids, operation for.....	15.00
Cataract, operation for.....	150.00
Ectropion, entropion, operation for.....	75.00
Eye, enucleation of.....	75.00
Eye, removing foreign bodies from cornea.....	2.00
Iridectomy	100.00
Intubation	75.00
Mastoidectomy	125.00
Nasal septum, operation for deflection.....	75.00
Pterygium, operation for.....	50.00
Strabismus, operation for.....	100.00
Paracentesis of ear drum.....	3.00
Sinus operation	50.00
Tonsillectomy, (adenoids \$10.00 extra).....	30.00

Miscellaneous

Blood transfusion	50.00
Analysis, urine, chemical.....	1.00
Analysis, urine, complete.....	5.00
Blood count	2.00
Blood Wassermann	5.00
Immunization, scarlet fever, typhoid, diphtheria	5.00
Vaccination	1.00
Salvarsan	15.00

Assistant's fees, anaesthetic and dressings are in addition to the foregoing.

Dr. Channing G. Smith, Granger, moved that the Committee's report be accepted and that it be given a vote of thanks for the efforts expended in bringing to the House its recommendations. Seconded and carried.

REPORT OF COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

The report on Medical Education and Hospitals was then presented by the Chairman, Dr. Bert L. Eiker, Leon, who stated that the substance of the Committee's work during the past year was contained in the handbook and that the recommendation of the Committee would be taken up at a later hour. With this understanding, the Chair stated if there were no objections the Committee's report would be accepted and placed on file.

House of Delegates, Iowa State Medical Society:
Your committee on Medical Education and Hospitals is unable at this time to make anything but a preliminary report.

A vast amount of the information called for in the resolution has either been collected or is in the process of being collected at the present time. From this material, the facts as they pertain to Iowa and especially those statewide problems concerning medical education and the care of the indigent sick, must be sifted out and tabulated in order to be of service to those interested.

The manner in which the profession of the state, the state university, the officers of the Iowa State Medical Society, and similar organizations in adjoining states, have responded to our requests for information has been very gratifying. From our investigation we feel that there is a desire on the part of all concerned to have an impartial investigation made in order that action may be based upon the actual legitimate needs of the state. With this thought in mind your committee is formulating a report which, when submitted to you in its entirety will lay a comprehensive and accurate foundation upon which future legal and professional action may be safely based. In accordance with the resolution which created the committee, we are collecting information relative to the medical care of the indigent sick in Iowa from both the local and state wide point of view and with due consideration of public and professional needs, and in addition are collecting comparative statistical data from states of equal and like population.

The committee report will be based upon an analysis of such data and will also contain a study of the Perkins, Haskell-Klaus laws, with an analysis of the law itself and its present operation as modified by certain legal opinions, and analysis of the administration and operation of the university hospital and the cost of the same, as well as a study of the effect of the law upon the profession, the state of Iowa, the indigent of our commonwealth, and the college of medicine of the state university. The latter consideration will involve a study of the clinical requirements of the college of medicine and to what extent these needs are met by the present laws, in which connection comparisons between Iowa and other states will again be made.

In making a study of the foregoing, many special problems have required investigation and will be set forth in detail in the final report, among which are the private practice of medicine by the university, fees and hospital service charges, operating and purchasing problems, and the waiting list of committed indigent patients.

It is obvious that this task is of great magnitude and one not to be hurriedly covered. It has involved personal collection of data by committee members, extensive correspondence, collection of literature, numerous meetings and personal investigations. In the search for literature we were confronted with the fact that this investigation was instituting a pioneer work. With the exception of the report made by the

committee of the Michigan State Medical Society, no material or literature was available which covered the exact field fixed for investigation by this committee. However, we have collected a large number of printed reports of numerous hospitals, special commissions, medical schools and various health and welfare foundations dealing with closely related subjects, much of which will be useful in formulating our report. Your committee has held twelve all-day meetings during the past six months. A final report is now being compiled and we are confident that it can be completed within the next six months.

Because of the wide scope of this investigation, the wealth of data available, and the significance of this material to the future of medicine in Iowa, your committee feels that this report demands such deliberate consideration by the Iowa State Medical Society as can be given only in a special meeting of the House of Delegates. We therefore respectfully request that a special meeting of the House of Delegates of the Iowa State Medical Society be called prior to January 1, 1931.

B. L. Eiker, Chairman
A. W. Erskine
A. V. Hennessy

The Report of the Committee on History of Medicine in Iowa, in the absence of its Secretary, Dr. Walter L. Bierring, Des Moines, was deferred.

MEMORIALS AND COMMUNICATIONS

The Chair then called for Memorials and Communications, to which Secretary Throckmorton replied that he had a request from the National Food Bureau, Chicago, that if consistent with the policy of the Iowa State Medical Society, a resolution similar to ones passed by some other state societies, endorsing the work of the Bureau, be passed by the House of Delegates. Inasmuch as a similar request was presented last year and had been referred to the Council for recommendation, the Secretary moved that this matter again be referred to the Council for such disposition as that body might see fit to recommend. After being duly seconded by Dr. Vernon L. Treyner, Council Bluffs, the motion was put and carried.

The Secretary then read a letter from the National Committee of Federal Legislation for Birth Control, requesting the endorsement of a bill to be introduced in Congress to amend the penal laws concerning birth control. Inasmuch as the request pertained to legislative affairs, the Secretary moved that the same be referred to the Committee on Public Policy and Legislation for its consideration and further report. Motion seconded and carried.

The Secretary then read a letter from the Fayette County Medical Society protesting against the ruling of the Attorney General, relative to the using and prescribing of medicines, narcotics, and the practicing of surgery by others than regular physicians, and moved that the same be referred to the Legislative Committee for further report. On being duly

seconded, the same was discussed by Dr. Thomas N. Walsh, Hawkeye, President of the Fayette County Medical Society, after which the motion was put and carried.

REPORT OF THE COMMITTEE ON THE HISTORY OF MEDICINE IN IOWA

Dr. Walter L. Bierring, Des Moines, Secretary of the Committee on History of Medicine in Iowa, being present, the Chair called for his report. There being nothing further to add to the report as published in the handbook for delegates, the Chair stated if there were no objections the same would be accepted and placed on file.

House of Delegates, Iowa State Medical Society:

In accordance with the action of the House of Delegates at Des Moines, May 10, 1929, President John H. Peck appointed the following members of the Committee on the History of Medicine in Iowa: Dr. David S. Fairchild, Clinton, Chairman; Dr. William Jepson, Sioux City; Dr. Frank M. Fuller, Keokuk; Dr. Arthur D. Woods, State Center, and Dr. Walter L. Bierring, Des Moines, Secretary.

With the organization of the Committee, the following policy was adopted: First, that the publication of the Medical History of Iowa in continuation of Volume I, so ably edited by Dr. Fairchild, be carried on and completed as soon as practicable. Second, to enlist the interest of individual members of the State Medical Society and particularly the officers of county societies to cooperate in the collection of available information in regard to the pioneer physicians and the development of medical practice in Iowa. Third, to publish each month in a separate department of the JOURNAL of the Iowa State Medical Society, special articles of historical interest, and all collected information of importance in completing the history of medicine in Iowa.

The death of the Chairman, Dr. David S. Fairchild on March twenty-second, 1930, removed the leading spirit from the committee. It is fortunate that Dr. Fairchild left a large amount of material, with detailed directions regarding its publication, so that the Committee feels it accords its highest tribute to the Nestor of Iowa Medical history by carrying out his ideas and wishes in this regard.

The Committee respectfully requests that provision be made for a small budget of expenditure to defray the cost of correspondence and other expense connected with the collection of historical data. Submitted by the Committee,

William Jepson,
Frank M. Fuller,
Arthur D. Woods,
Walter L. Bierring, Secretary.

New Business

The Chair then asked if there were additional reports to be made by the Secretary, Treasurer, or Council. There were none.

Dr. Oliver J. Fay, Des Moines, Chairman Board of Trustees, then moved that the provision in the closing remarks of the Trustees' report, "recom-

mending the continuance of a permanent central office with a lay executive in charge, the extension of present activities as the demands of the component societies and our membership warrant, and the addition of a qualified clerk or secretary to have especial responsibility for all routine details connected with the maintenance of a Speaker's Bureau", receive the endorsement of the House.

Seconded by Dr. Alfred S. Price, Des Moines, and carried.

Dr. Frank A. Ely, Des Moines, Chairman of the Medico-Legal Committee, then made a few remarks relative to some of the legal phases of the Committee's work and asked that a vote of confidence be expressed.

Dr. Channing G. Smith, Granger, moved that the Medical Defense Committee be authorized to employ such legal assistance as it might need. Motion seconded.

Following a short discussion by Dr. Oliver J. Fay, Des Moines, Dr. Smith, with the consent of his second, withdrew the motion.

Dr. Thomas A. Burcham, Des Moines, Chairman of the Committee on Public Policy and Legislation, then discussed the Committee's report relative to a Basic Science Law and asked for instruction for the future guidance of the Committee regarding this matter.

Motion was then made by Dr. Edward L. Bower, Guthrie Center, that the Committee be instructed to use its efforts in putting on the statutes of Iowa, a Basic Science Law. Seconded by Dr. Oliver J. Fay, Des Moines, who requested that Dr. Walter L. Bierring, Des Moines, be granted the privilege of discussing this subject before the House.

Following Dr. Bierring's remarks, the motion was discussed by Drs. Burcham, Bellinger, Fay and Kenefick.

Dr. Charles B. Taylor, Ottumwa, proposed as a substitute motion that the Legislative Committee be instructed not to formulate a Basic Science Law, but that the House give the Committee a vote of confidence for the work it had performed. After being duly seconded, the following named gentlemen entered into its discussion: Drs. Jepson, Gray, Cole, Bierring and Kenefick, and with the consent of the House, Dr. Henry S. Houghton, Dean of the College of Medicine of the State University of Iowa.

The motion was then put and carried.

A motion was then made by Dr. Thomas A. Burcham, Des Moines, that the Legislative Committee be instructed to communicate with the Iowa Hospital Committee regarding the matter of licensing of hospitals. Seconded and carried.

Dr. Charles B. Taylor, Ottumwa, moved that the House proceed to the consideration of the proposed Constitutional amendments. The motion was then seconded and put.

Dr. Vernon L. Treynor, Council Bluffs, suggested that the proposed constitutional changes be considered article by article.

The Chair, after putting the question, being unable to decide the yeas and nays, ordered a rising vote, which resulted in 23 for and 18 against. The Chair declared the motion carried.

The question was then raised as to the full voting power of the House and as to what constituted a quorum. The latter was readily answered by quoting from the By-Laws, Chapter 4, Section 3, after which the Chair ordered a roll call. The same showed the presence of 16 officers and 46 delegates, making a total of 62.

A motion was made by Dr. Vernon L. Treynor, Council Bluffs, that the proposed constitutional amendments be considered article by article and each voted on in turn. After being duly seconded, the Chair called for a rising vote and a majority voting in the affirmative, the motion was declared carried.

The President then stated that the House would proceed to vote on the proposed constitutional amendments article by article and reminded the members that since the Constitution required a two-thirds vote of the delegates registered to carry any amendment to the same, 42 affirmative votes would be necessary for the adoption of any proposed amendment.

The Chair then read the proposed constitutional amendment Article I, Name of the Association—"The name and title of this organization shall be the Iowa State Medical Association", and called for those favoring the adoption of the same to rise. The result showed 34 affirmative votes, which the Chair declared less than the constitutional requirement and the amendment therefore lost.

The Chair then read Article II, Purposes—"The purposes of this Association are to promote the science and art of medicine, the protection of public health, and the betterment of the medical profession; and to unite with similar organizations in other states and territories of the United States to form the American Medical Association", and asked those favoring its adoption to rise. The counting of the votes showed 27, which the Chair declared less than the constitutional requirement and the amendment therefore lost.

A motion to adjourn was made at this time by Dr. Charles B. Taylor, Ottumwa, but failing to receive a second, the Chair proceeded to the consideration of Article III.

The Chair then read Article III, Component Societies—"Component Societies shall consist of those county medical societies which hold charters from this Association", and stated that inasmuch as the name of the Society remained unchanged as indicated by the failure of adoption of Article I, there was no reason for putting the same to a vote.

After reading Article IV, Composition of the Association—"This Association shall consist of members who shall be the members of the component county medical societies who have been certified to the

headquarters of this Association, and whose dues and assessments for the current year have been received by the Secretary", the Chair then asked those favoring its adoption to rise. The counting of the votes showed 32, which were declared less than the constitutional requirement and the amendment thereby lost.

A motion to adjourn was again made by Dr. Charles B. Taylor, Ottumwa, but it being unseconded, the House proceeded to a consideration of Article V, House of Delegates—"The House of Delegates shall be the legislative body of the Association, and shall consist (1) of delegates elected by the component county societies, and (2) the officers of the Association enumerated in Section 1 of Article IX of this Constitution", and the Chair stated that the failure of the adoption of Article I rendered unnecessary the consideration of the first part of the Article, and that the second part would necessarily depend upon the adoption of Article IX, which would later be taken up. He, therefore, declared no vote was necessary on Article V.

The Chair then read Article VI, Council—"The Council shall be the Board of Trustees of this Association. The Council shall have full authority and power of the House of Delegates between annual sessions, unless the House of Delegates shall be called into session as provided in the Constitution and By-Laws. It shall consist of the Councilors, the President, the President-Elect, and the Secretary-Treasurer of the Association. Seven of its members shall constitute a quorum", and asked those favoring its adoption to rise. The counting of the votes showed 33, which the Chair declared less than the constitutional requirement and the amendment thereby lost.

Dr. John I. Marker, Davenport, then moved that the House reconsider the motion to take up the proposed constitutional amendments article for article and to rescind the same, in order that the remaining articles might be voted upon collectively. Seconded and carried.

Dr. Thomas A. Burcham, Des Moines, moved that the House vote on the remaining articles as a whole. Seconded and carried.

The Chair then put before the House the remaining articles of the Proposed Constitution, to-wit: VII, VIII, IX, X, XI, XII, XIII, and called for an expression of the House as to their adoption. The resulting vote showed that the required constitutional two-thirds was not attained and the Chair declared the articles not adopted.

Further remarks upon the recommendations of the Committee on Medical Economics were then made by Dr. T. U. McManus, Chairman, after which Dr. Channing G. Smith, Granger, moved the adoption of the same.

After being duly seconded, the following named gentlemen entered into a discussion: Drs. Donohoe, Dewey, Harkness, Treynor, Kenefick, Hennessy and McManus.

A question was raised concerning the right of the Iowa State Medical Society to authorize a Fee Bill, designated as Exhibit "A" in the handbook, to which Chairman McManus replied that a legal opinion covering this point had been received, and referred the same to Secretary Throckmorton, who read the opinion submitted by Stipp, Perry, Bannister & Starzinger, stating that such was entirely lawful.

The motion was then put and carried.

Dr. Bert L. Eiker, Leon, offered further remarks concerning the Report of the Committee on Medical Education and Hospitals, and requested that some action be taken on the Committee's desire that at some future date there be called a Special Session of the House to complete some important data which the Committee expected to formulate and offer for its consideration.

Dr. John F. Herrick, Ottumwa, moved that it be the expression of the House that at the time the Committee was ready to present its report, the President be notified of the Committee's request, and that he favorably consider the same. Seconded by Dr. Thomas F. Suchomel, Cedar Rapids, and carried.

Dr. William Jepson, Sioux City, moved that the matter of Contract Practice be referred to the Committee on Medical Economics, for further consideration. Seconded and carried.

Dr. Jepson then stated that the Woodbury County Medical Society had instructed him to present the following resolution: "That the President of the Iowa State Medical Society appoint from its membership a committee of three, upon which committee the President and Secretary of the Society shall be ex-officio members, whose duty it shall be to formulate one or more plans for affording adequate aid to super-annuated members of our profession in good standing in this Society and to report the same to this Society at its next annual meeting", and moved its adoption. Seconded and carried.

The question of the time of the final meeting of the House of Delegates then came up and it was moved by Dr. Alexander D. McKinley, Des Moines, that the Friday Meeting be called at 8:00 A. M., instead of 1:30 P. M. Seconded and carried.

Dr. Lysle C. Howe, Muscatine, then briefly outlined some of the work which the medical profession have been carrying on in his county, relative to the Baker Institute, and asked for an expression of the House regarding plans relative to any future activities along the line of obtaining information to be sent to the Federal Radio Commission.

A motion was then made by Dr. Paul E. Gardner, New Hampton, that the Board of Trustees be requested to authorize the expenditure of such sum of money as in its judgment might be necessary to assist in carrying out the above request. Seconded and carried.

There being no further business to come before the House, the same was adjourned at 10:51 P. M., to meet at 8:00 A. M. Friday.

The delegates from the various congressional districts then assembled to select a member from their various districts to act as members of the Nominating Committee. The Committee reported was as follows:

First District—Dr. Bernard J. Dierker, Fort Madison.

Second District—Dr. John I. Marker, Davenport.

Third District—Dr. William L. Hearst, Cedar Falls.

Fourth District—Dr. Felix A. Hennessy, Calmar.

Fifth District—Dr. Thomas F. Suchomel, Cedar Rapids.

Sixth District—Dr. Charles H. Cronk, Bloomfield.

Seventh District—Dr. Thomas A. Burcham, Des Moines.

Eighth District—Dr. James C. Donahue, Centerville.

Ninth District—Dr. Elmer J. Cole, Woodbine.

Tenth District—Dr. Roland W. Stahr, Fort Dodge.

Eleventh District—Dr. Frank P. Winkler, Sibley.

THIRD MEETING. FRIDAY, MAY 16

The House of Delegates met in the Ballroom of the Hotel Tallcorn, and was called to order by President Peck, at 8:09 A. M.

Roll call showed the presence of 10 officers and 49 delegates, making a total of 59.

The credentials of Dr. Edward M. Myers, Boone, were then presented, showing that he had been duly authorized by the Boone County Medical Society to represent that county as alternate delegate, and in the absence of the delegate, he was seated.

The President announcing that a quorum was present, the House then proceeded to the transaction of business.

The minutes of the first meeting of the House, held on Tuesday, May 13, were then read by the Secretary. There being no corrections or objections, upon motion by Dr. C. A. Boice, Washington, duly seconded, the same were approved as read.

Dr. William Gerry Morgan, President-Elect of the American Medical Association, being present, was escorted to the platform, where he expressed in a few well chosen words his delight at the work of the House of Delegates and of the Scientific Assembly as a whole.

The report of the Committee on Nominations being the first order of business, Dr. Roland W. Stahr, Fort Dodge, Secretary of the Committee, presented the report as follows:

REPORT OF THE COMMITTEE ON NOMINATIONS

Officers

For the office of President-Elect—Dr. W. W. Bowen, Fort Dodge; Dr. Fred L. Murray, Cedar Rapids; Dr. Channing G. Smith, Granger.

For First Vice-President—Dr. Raymond S. Grossman, Marshalltown.

For Second Vice-President—Dr. W. R. Brock, Sheldon.

For Secretary—Dr. Robert L. Parker, Des Moines.

For Treasurer—Dr. Daniel J. Glomset, Des Moines.

For Councilor, First District—Dr. Clyde A. Boice, Washington.

For Councilor, Ninth District—Dr. A. V. Hennessey, Council Bluffs.

For Councilor, Eleventh District—Dr. William Jepson, Sioux City.

For Member Board of Trustees—Dr. Gordon F. Harkness, Davenport.

For Delegates to A. M. A. for two-year term—Dr. Donald Macrae, Council Bluffs; Dr. William Jepson, Sioux City.

For Alternate Delegates to A. M. A. for two-year term—Dr. Thomas A. Burcham, Des Moines; Dr. John F. Herrick, Ottumwa.

Standing Committees

For members of Medico-Legal Committee—Dr. George C. Albright, Iowa City; Dr. F. Earl Beltinger, Council Bluffs.

For Public Policy and Legislation Committee, to succeed themselves—Dr. Thomas A. Burcham, Des Moines; Dr. W. Eugene Wolcott, Des Moines; Dr. Peter A. Bendixen, Davenport, and the President and Secretary.

For members of the Constitution and By-Laws Committee—Dr. John H. Peck, Des Moines; Dr. Charles B. Taylor, Ottumwa; Dr. Frederick J. Swift, Maquoketa.

For members of the Finance Committee—Dr. Ernest C. McClure, Bussey; Dr. Ratford F. Childs, Audubon; Dr. Andrew W. Bennett, Iowa City.

Respectfully submitted,

Dr. Roland W. Stahr, Fort Dodge,
Secretary.

The attention of the House was then called to the fact that Dr. Fred L. Murray, Cedar Rapids, was ineligible as a candidate for President-Elect, owing to the fact that he was not in attendance at the meeting. After a slight discussion the Chair ruled that the Nominating Committee should retire and bring in the name of another candidate, which was accordingly done, and the name of Dr. Charles S. Krause, Cedar Rapids, was presented.

ELECTION OF OFFICERS

The House then proceeded to an election.

The President appointed Dr. Jay R. Dewey, Schaller, and Dr. Frederick J. Swift, Maquoketa, as tellers.

The ballot was then taken for the office of President-Elect. A ballot of 56 votes was cast, of which Dr. Channing G. Smith, Granger, received 37, and the Chair declared him elected to the high office of President-Elect.

The Chair then requested Dr. Elmer J. Cole, Woodbine, and Dr. Samuel T. Gray, Albia, to escort

the President-Elect to the platform, where he was formally introduced to the House, after which he spoke a few words of appreciation concerning the high honor which the members had seen fit to confer upon him and pledged during the coming two years that in return for this honor he would give to organized medicine in Iowa the very best within him in the way of service.

Dr. Earl B. Bush, Ames, moved that as there was but one candidate for the other offices and committees thus far reported on by the Nominating Committee, the rules be suspended and the Secretary instructed to cast a ballot for the remaining officers and committee members. Seconded.

Secretary Throckmorton then rose to a point of order, stating that as no delegate was eligible to any office other than Trustee or Councilor, Dr. Daniel J. Glomset, Des Moines, was ineligible as a candidate for the office of Treasurer.

Chairman Peck stated that the point was well taken and asked that the Nominating Committee again retire and submit another candidate for this office.

The Committee's report, which followed a conference, showed the name of Dr. Edwin B. Winnett, Des Moines, as a candidate for Treasurer.

With this above correction Dr. Bush again placed his motion before the House, which on being duly seconded was carried, and the Secretary then cast the ballot. The Chair declared the officers and committeemen duly elected.

Secretary Throckmorton then stated that inasmuch as no provision had been made by the House to continue the Special Committees, Medical Library, Military Affairs, Medical Economics, Medical Education and Hospitals, and Historical Committee, he would move that the same be continued. Seconded and carried.

Dr. Roland W. Stahr, of the Nominating Committee then read the list of the Special Committees as follows:

Medical Library

Dr. Felix A. Hennessy, Chairman, Calmar
Dr. Conrad R. Harken, Osceola
Dr. Leroy M. Downing, Cedar Rapids

Military Affairs

Dr. Donald Macrae, Jr., Chairman, Council Bluffs
Dr. Harold A. Spilman, Ottumwa
Dr. Earl B. Bush, Ames

Medical Economics

Dr. Thomas U. McManus, Waterloo, Chairman
Dr. Ratford F. Childs, Audubon
Dr. Corwin S. Cornell, Knoxville
Dr. James C. Donahue, Centerville
Dr. Isaac E. Nervig, Sioux City

Medical Education and Hospitals

Dr. Bert L. Eiker, Leon, Chairman
Dr. Arthur W. Erskine, Cedar Rapids
Dr. Albert V. Hennessy, Council Bluffs

Historical Committee

Dr. Walter L. Bierring, Des Moines
Dr. Frank M. Fuller, Keokuk

Dr. William Jepson, Sioux City
Dr. Arthur D. Woods, State Center
Dr. Norman F. Miller, Iowa City

Dr. Thomas F. Suchomel, Cedar Rapids, moved that the personnel of the committees be accepted, which motion upon being seconded by Dr. Tom B. Throckmorton, was carried.

REPORT OF THE FINANCE COMMITTEE

Report of the Finance Committee was made by the Chairman, Dr. E. C. McClure, Bussey. Dr. McClure in his report stated that since the Trustees had seen fit to have the books of the Secretary and Treasurer audited by a certified public accountant, the work of the Committee was purely one of acquiescence, in that the Committee was perfectly satisfied with the reports as presented by the Secretary and Treasurer, and moved the acceptance of the accountant's report. Seconded and carried.

Unfinished Business

Dr. Thomas A. Burcham, Chairman of the Committee on Public Policy and Legislation, stated that the matter concerning Birth Control, which had been referred to the Committee, was not passed upon by it and hence no action could be reported.

Dr. Samuel T. Gray, Albia, Secretary of the Council, stated that the matter concerning the National Health Bureau, which had been referred to the Council for consideration, was not acted upon by that body, and moved that the same be laid on the table. Seconded and carried.

New Business

The Secretary then read the resignation of Dr. John F. Herrick, Ottumwa, Trustee; also the resignation of Dr. Channing G. Smith, Granger, Chairman of the Council.

Dr. Guy P. Reed, Davis City, moved that the resignations of Dr. Herrick and Dr. Smith be accepted. Seconded and carried.

The Chair then asked that the Committee on Nominations reconvene for the purpose of bringing in the names of candidates to fill the vacancy of Trustee and of Councilor for the Seventh District.

After deliberation the Committee reported the name of Dr. Edward M. Myers, Boone, as Trustee to fill out the unexpired term of Dr. Herrick; and Dr. Thomas A. Burcham, Des Moines, as Councilor for the Seventh District, to fill out the unexpired term of Dr. Smith.

Dr. Earl B. Bush, Ames, moved that the Committee's report be accepted and that Dr. Myers for Trustee, and Dr. Burcham for Councilor, be the choice of the House of Delegates, to fill out the unexpired terms. The motion, on being duly seconded, was carried, and the Chair declared the vacancies so filled.

The Secretary read a resolution passed by the Northwest Medical Society, in Sheldon, endorsing the

candidacy of Dr. F. P. Winkler, Sibley, for appointment on the Iowa State Board of Medical Examiners. The following named gentlemen then took part in an informal discussion of the matter: Dr. William Jepson, Sioux City; Dr. Guy P. Reed, Davis City; Dr. Chas. B. Taylor, Ottumwa; Dr. Frank T. Launder, Garwin, and Secretary Throckmorton, after which no action was taken by the House in reference to the resolution.

A question arose regarding the time and place of the meeting next year, upon which Secretary Throckmorton stated that the Nominating Committee had recommended Des Moines as the next meeting place.

Dr. Thomas F. Suchomel, Cedar Rapids, moved that Des Moines be chosen for the next Annual Session, the dates being May 13, 14, 15, 1931. Seconded and carried.

The Secretary read telegrams from the Sister State Associations of Ohio, Missouri, Georgia and New Hampshire, replying to the greetings sent by the House at its first meeting.

Dr. William Jepson, Sioux City, then introduced the following resolution and asked that it be read by the Secretary, following which he moved its adoption. Seconded and carried.

It Is Moved That: The House Delegates of the Iowa State Medical Society, through its President, respectfully request of its Councilors that they further serve this Society by assuming the added duties of constituting themselves a committee which shall aid and support the Committee on Public Policy and Legislation, in such manner as it may deem of greatest value to the profession and benefit to the state and its citizenship. To the above end it may meet at such times and places as it may deem expedient or necessary, upon call by the President of this Society.

Nothing in the above shall be construed as making it incumbent upon the Committee on Public Policy and Legislation to accept of the good offices and services of said Councilors.

Dr. Earl B. Bush, Ames, then presented the following resolution and moved its adoption. Seconded and carried.

Resolved: That a memorial for Dr. David S. Fairchild, be established in the form of a David S. Fairchild collection in the Iowa State Medical Library, to consist of books, monographs, and other matters pertaining to the History of Medicine,

That this collection be placed in the Iowa State Medical Library,

That the Board of Trustees be requested to expend a sum not to exceed \$500.00, payable \$100.00 per annum, for the purchase of this collection,

That this collection be purchased by the Medical Library Committee of the Iowa State Medical Society.

Dr. Charles B. Taylor, Ottumwa, moved that the Board of Trustees be requested to procure a suitable tablet in memory of Dr. David Sturgis Fairchild, Sr.,

to be placed in the State Medical Library. Seconded and carried.

There being no further business to come before the House, the Secretary requested that he be permitted to address the House, which request was cheerfully granted by the President. Secretary Throckmorton then briefly reviewed his work during the past fourteen years and reminded the delegates that it had ever been a pleasure to serve Iowa Medicine and to meet with many of the present officers and delegates each year in the various activities of the House. He also took this opportunity of assuring the newly elected officers of his willingness to assist them in any way possible during the coming year and bespoke his belief that the Society would continue in that same peace and harmony which had characterized its activities during all the years he had served as Secretary.

Dr. Oliver J. Fay, Des Moines, then expressed his personal appreciation of the work which Secretary Throckmorton had done, and moved that the House show its appreciation to the retiring Secretary by a rising vote of thanks. Seconded and carried.

Upon motion by Dr. C. A. Boice, Washington, duly seconded, the House of Delegates adjourned at 10:00 A. M., sine die.

Tom B. Throckmorton, M.D., Secretary.

UNITED STATES CIVIL SERVICE COMMISSION

The United States Civil Service Commission states that physicians are needed at the following named establishments of the United States Indian Service:

Cheyenne River Agency, South Dakota.
Jicarilla Agency, New Mexico.
Theodore Roosevelt Indian School, Arizona.
Consolidated Ute Agency, Colorado.
Standing Rock School, North Dakota.

Persons interested should apply to the United States Civil Service Commission, Washington, D. C., and ask for examination announcement No. 51 and application blanks Forms 2600 and 2398.

VETERANS' HOSPITAL AT FORT LYON, COLORADO, HAS PLACE FOR SPECIALIST IN PATHOLOGY

The United States Civil Service Commission has announced that the Veterans' Bureau Hospital at Fort Lyon, Colo., is in need of a medical officer to serve as specialist in pathology.

The entrance salary is \$3,800 a year. Higher salaried positions are filled through promotion.

Those who are interested should write to the United States Civil Service Commission, Washington, D. C., or to the Secretary of the Thirteenth United States Civil Service District, Denver, Colo., and ask for examination announcement No. 51 and application blanks Nos. 2600 and 2398.

SOCIETY PROCEEDINGS

Black Hawk County

Members of the Black Hawk County Medical Society met Friday evening, June 20, in Waterloo. After a six-thirty dinner served in Black's Tea Room, E. R. Coffey, M.D., of Des Moines, addressed the gathering, explaining in some detail the plan of a county health unit. Dr. Coffey is a member of the United States Health Service, and at present is working with the Iowa State Department of Health in a survey of health work throughout the state.

Carroll County

After a six-thirty chicken dinner served at the St. Anthony Hospital in Carroll, a scientific program was presented before members of the Carroll County Medical Society, Thursday, June 5. R. H. Lott, M.D., read a paper on Carcinoma, and Walter Anneberg, M.D., talked on Acrodynia.

Cerro Gordo County

The Cerro Gordo County Medical Society held its regular meeting Tuesday, June 17, at the Clear Lake Country Club. This was the social meeting of the year and over seventy physicians, wives and guests were entertained at the seven o'clock dinner. President D. W. Morehouse of Drake University, and a noted astronomer, delivered an address on The Birth of a Star. This was a great evening and everyone present enjoyed it immensely.

Visiting doctors at this meeting were Dr. George A. Bemis of Garner, Dr. S. S. Wesley of Manly, Dr. T. J. Irish of Forest City, and Dr. F. H. Rodemeyer of Sheffield. Our next meeting will be July 15, and will consist of a chest clinic, conducted by Dr. John H. Peck of the Iowa Tuberculosis Association.

T. E. Davidson, M.D., Secretary.

Dallas-Guthrie Society

The June meeting of the Dallas-Guthrie County Medical Society was held Tuesday, June 17, at the State Hospital in Woodward. The session began in the morning at 9:30 with a ward walk conducted by Andrew H. Woods, M.D., head of the Department of Psychiatry at the State University of Iowa. This clinic furnished the foundation of the afternoon program.

At noon a cafeteria dinner was served to over a hundred physicians, wives and guests. Immediately after the lunch the Woman's Auxiliary held its annual meeting, and the following scientific program was presented to members of the Dallas-Guthrie County Medical Society: Deficiency Factors in Inheritance, C. M. Porter, M.D., of Woodward; Presentation of Clinical Cases, State Hospital Medical Staff, Discussion opened by Frank A. Ely, M.D., of Des Moines; The Mistakes of Diagnosis, William A.

Rohlf, M.D., of Waverly, president of the Iowa State Medical Society; The Work of the State Society, Channing G. Smith, M.D., of Granger, president-elect of the Iowa State Medical Society.

Fayette County

Monday, June 9, twenty-five members of the Fayette County Medical Society met in West Union for the following program: Retrocecal Appendicitis, William A. Rohlf, M.D., of Waverly; and Importance of Complete Examination of Children, Fred F. Agnew, M.D., Independence.

Jackson County

Another all day medical session was held Thursday, June 19, at Bellevue, when the annual picnic of the Jackson County Medical Society took place. The morning was devoted to golf and other entertainment, followed by a Mississippi river catfish dinner served in the Oak Lodge at one o'clock.

The afternoon scientific program consisted of: Coronary Thrombosis, H. A. Stribley, M.D., Dubuque; Typhoid Fever, Leslie K. Fenton, M.D., Clinton; Pneumonia, Walter Cary, M.D., Dubuque; Dysmenorrhea, Norman F. Miller, M.D., Iowa City; and a motion picture How Biological Products Are Made.

An important step was taken at the business session when the members voted to authorize the formation of a Woman's Auxiliary to the Jackson County Medical Society.

Officers of the society are Dr. Elmer L. Lampe of Bellevue, president; Dr. C. H. Armstrong of Preston, vice-president, and Dr. William Lowder of Maquoketa, secretary and treasurer.

Johnson County

Campbell P. Howard, M.D., who is Professor of Internal Medicine at the McGill University in Toronto, Canada, furnished the scientific program for the regular monthly meeting of the Johnson County Medical Society held in Iowa City, Wednesday, June 4. Dr. Howard presented Some Epidemiological and Therapeutic Aspects of Acute Lobar Pneumonia. Iowa physicians who were in attendance at the heart and lung and general surgery clinics were special guests of the local society at dinner and meeting.

Marion County

Dr. J. J. Sybenga of Pella, was host to the members of the Marion County Medical Society for their regular June meeting the afternoon and evening of June 10. No regular program was presented and the subjects of medicine, politics and religion were taboo for the day. Dr. C. S. Fox read an original skit on "Captain Kidd" which ended with the search and unearthing of the hidden treasures.

A buffet luncheon with the host as chef was enjoyed by the sixteen doctors present. Dr. Channing G. Smith of Granger, president-elect of the Iowa State Medical Society, and Dr. M. L. Underwood, Knoxville, Medical Officer in charge of U. S. Veterans' Hospital, were guests of honor.

C. S. Cornell, M.D., Secretary

Monroe County

The Monroe County Medical Society held a meeting in Dr. Burke Powell's office in Albia, Thursday evening, June 12, and the following program was presented: Report of State Meeting, J. F. Stafford, M.D., delegate; Severe Anemia of Pregnancy, T. A. Moran, M.D.

Poweshiek County

The June meeting of the Poweshiek County Medical Society was held in Montezuma, Thursday, June 12, and took the form of a skin clinic which was conducted by H. C. Willett, M.D., of Des Moines.

Scott County

Tuesday, June 3, the regular monthly meeting of the Scott County Medical Society was held at the Chamber of Commerce in Davenport. Peter A. Bendixen, M.D., was the speaker of the evening, giving an illustrated lecture on Fractures of the Elbow.

Washington County

John F. Herrick, M.D., presented the program for the Washington County Medical Society at the meeting held Tuesday, June 3. Dr. Herrick read a paper on The Gall Bladder.

Waterloo Medical Society

Otis W. Britt, M.D., of Waterloo, furnished the scientific program for the June meeting of the Waterloo Medical Society held Tuesday, June 17. He dealt with the subject of Diagnosis and Treatment of Intestinal Tuberculosis in the Adult. Officers elected at the business meeting include: Dr. Albert J. Joynt, president; Dr. Ivan R. Powers, vice president; Dr. James F. Gerken, secretary, and Dr. John L. Kestel, treasurer.

Iowa State Dietetic Association

The Iowa State Dietetic Association convened in Iowa City for a two day session, June 18, at the University Hospitals. Among other speakers on the program, two Iowa physicians were included. Fred M. Smith, M.D., professor and head of the department of the theory and practice of medicine, spoke Wednesday on The Irritable Colon. Julian D. Boyd, M.D., assistant professor of pediatrics dealt with the subject The Diabetic Child.

Des Moines Valley Medical Association

The fifty-seventh annual meeting of the Des Moines Valley Medical Association was held in Ottumwa, Tuesday, June 17, and consisted of an all-day session of clinics and scientific papers. The subject of the day was cancer, and a Symposium on Cancer

of the Breast was presented by Ira H. Lockwood, M.D., of Kansas City; Isaac Y. Olch, M.D., of St. Louis, and John A. Wolfer, M.D., and William H. Holmes, M.D., both of Chicago.

At the business session the following officers were elected: Dr. Hal A. Spilman of Ottumwa, president; Dr. Charles D. Shelton of Bloomfield, first vice-president; Dr. T. A. Moran of Melrose, second vice-president, and Dr. Edward B. Hoeven of Ottumwa, secretary and treasurer. The old Board of Censors was re-elected and consists of Dr. E. E. Sherman of Keosauqua, Dr. S. T. Gray of Albia and Dr. L. D. James of Fairfield.

Twin Lakes District Medical Society

The Eighth Annual Assembly of the Twin Lakes District Medical Society was held at Rockwell City, Thursday, June 12. President W. W. Bowen of Fort Dodge, called the meeting to order at 9:00 a. m., and the following scientific program was presented: The Future Status of the Medical Practitioner, William J. Mayo, M.D., of the Mayo Clinic at Rochester; Non-Operative Treatment of Uterine Fibroma, Leda J. Stacy, M.D., also of the Mayo Clinic. In addition to her paper, Dr. Stacy presented a diagnostic clinic in gynecology including Leucorrhoea, Low Back Pain, Cervical Erosions, and Cancer. Frank S. Mann, M.D., who is Director of the Division of Experimental Surgery and Pathology at the Mayo Clinic read a paper on The Newer Physiology of the Liver As Applied to Morbid Processes. The last number on the morning program consisted of another diagnostic clinic conducted by Thomas B. Magath, M.D., of the Mayo Clinic, including Actinomyces, Tularemia, Tape Worm Manifestation, and Intestinal Parasites.

At noon the society adjourned for a picnic lunch at the Twin Lakes State Park, after which the Woman's Auxiliary to the Twin Lakes District Medical Society held its annual meeting in the park, and the physicians returned for the afternoon scientific session.

At 2:00 o'clock, Willard Barlett, M.D., Associate in Surgery, Washington University, conducted a diagnostic clinic of Thyroid Disease, Differentiation Peptic Ulcer and Cancer, Gall Stone Disease, Intestinal Obstruction, Uterine Prolapse, Gonococcus Disease of Adnexa, Post Operative Hernia. Arthur D. Dunn, M.D., Professor of Clinical Research, Department of Medicine, University of Nebraska then presented three case reports; Endocarditis; Rheumatic Puerpura with Broncho pneumonia with Carcinoma of the Stomach with Metastasis to the Lungs; and Fungus Infection of the Hand. Dr. Dunn, a nephew of Dr. Arthur D. Dunn, also presented two cases of Diabetes. The session closed with the presenting of an Orthopedic Clinic on Hip Fractures and Osteomyelitis by H. Winnett Orr, M.D., of Lincoln, Nebraska.

Three new counties were added to the society this year: Kossuth, Hamilton and Humboldt. This makes a total of eleven counties, the other eight being, Calhoun, Carroll, Greene, Ida, Pocahontas, Sac. Webster and Wright. Officers elected for the coming year are Dr. M. J. Kenefick of Algona, president.

and Dr. Paul W. Van Metre of Rockwell City, secretary-treasurer.

AUXILIARY NEWS

Twin Lakes Auxiliary Election

Thursday afternoon, June 12, the Woman's Auxiliary to the Twin Lakes District Medical Society met in Rockwell City in conjunction with an all-day session of the society, and elected the following officers: Mrs. David H. Hopkins of Glidden, president; Mrs. P. W. Van Metre of Rockwell City, vice-president; Mrs. G. C. Moorhead of Ida Grove, secretary, and Mrs. Warren E. McCrary of Lake City, treasurer. Mr. Vernon D. Blank, managing director of the state society was present and addressed the gathering. State Officers Mrs. E. L. Bower, Mrs. Channing G. Smith and Mrs. P. B. McLaughlin also attended and gave short talks.

Dallas-Guthrie Auxiliary Elects Officers

Mrs. M. N. Voldeng presided at the meeting of the Dallas-Guthrie Auxiliary held Tuesday, June 17, at Woodward. Officers elected for the coming year include Miss Thora Brookings of Woodward, president; Mrs. George Elvidge of Perry, vice-president; Mrs. George McMahon of Waukeg, secretary, and Mrs. E. T. Warren of Stuart, treasurer. Mrs. Channing G. Smith was present and reported on the Twin Lakes Auxiliary meeting. Mr. Blank, of the state society, and Mr. C. M. Roberts, member of the State Board of Control, also addressed the meeting.

PERSONAL MENTION

Drs. J. N. Warren of Los Angeles, California, and I. E. Nervig, J. A. Dales, N. Palmquist and J. A. Thomson of Sioux City were guests of honor at the annual banquet and reunion of the Samaritan Nurses Alumnae Association, Tuesday, June 10. All five physicians had been on the old Samaritan Hospital Staff in Sioux City.

Drs. Thomas G. Herrick has purchased the equipment of the late Dr. Reed, and has moved his family to Hubbard. Dr. Herrick is a graduate of the State University of Iowa Medical School and for the past two years has been practicing medicine in Gilmore City, with his father, Dr. Rupert C. Herrick.

Dr. E. E. Harris of Grinnell has recently been appointed on the Pension Board of Poweshiek County to fill the vacancy caused by the death of Dr. Evan S. Evans. The other members of the Board are Drs. E. B. Wiley and E. C. Bliss.

Dr. L. L. Davidson of the McCrary Hospital, Lake City, and his family have left for an eastern trip during which time Dr. Davidson will take a special thyroid course in a Boston hospital.

Drs. E. D. Plass, H. C. Hesselstine and I. H. Borts of the State University of Iowa Medical School

were awarded bronze medals for scientific exhibits at the annual convention of the American Medical Association. They were given medals in class one of the exhibits, which is for individual investigation judged on a basis of originality and excellence of presentation.

Dr. A. A. Crabbe of Traer was named president of the local Community Players at the annual business meeting held in Traer, Friday, June 13.

Dr. S. D. Porter, formerly of Neola, is locating in Grinnell. Dr. Porter is a recent graduate of the Medical School of Creighton University, Omaha.

Dr. and Mrs. John R. Black, of Jefferson, sailed from Montreal on June 27 for a three months' tour of Russia, England, Norway, Switzerland, Italy, Greece, Turkey, the Holy Land and Egypt.

Dr. George Scanlan, of Dewitt, has been appointed a company physician for the Chicago and Northwestern Railroad Company.

Dr. J. H. Campbell is leaving Dubuque and moving his family to Athens, Georgia, where he will continue in the practice of medicine.

Dr. Charles V. Waggoner, of Clinton, has received a commission as a lieutenant in the Naval Reserve and has taken his two weeks' training at the Great Lakes Naval Training Station. Dr. Waggoner is a graduate of the University of Iowa and is a son of Dr. and Mrs. John Waggoner of Dewitt.

Dr. Harold L. Graber is a new physician in Osceola, having arrived only recently to take the place of Dr. Bubblis, who has gone to Des Moines. Dr. Graber is a graduate of the Northwestern University and specializes in obstetrics.

Dr. J. L. Doyle, a recent graduate of Creighton University Medical School, is locating in Keota for the practice of medicine.

Dr. F. M. Keefe, of Clinton, has received official announcement of his appointment as district surgeon for the Northwestern Railway, thereby filling the vacancy created by the death of Dr. David S. Fairchild.

Dr. Thomas Wright, formerly of the Newton Clinic, has purchased the office equipment of Dr. I. L. Gould and will continue the practice of medicine in Kellogg.

Dr. T. B. Lacey, of Glenwood, has been selected as a member of the faculty of Creighton University Medical School in Omaha. The new appointment is for a series of lectures on subjects of a mental nature and will not conflict with the doctor's present duties at the State Institution for Feeble-Minded Children.

Dr. Karl J. Fauth, formerly of Gaylord, Minnesota, is coming to Wellsburg, where he has purchased the equipment of the late Dr. C. H. Heddens. Dr. Fauth graduated from the State University of Iowa Medical School and has since been practicing in Minnesota.

MARRIAGES

The marriage of Miss Virginia Neff, daughter of Professor and Mrs. I. F. Neff, Des Moines, to Dr. William Bronk Chase, Jr., son of Dr. and Mrs. William B. Chase, Des Moines, took place Saturday, June 21. The ceremony was performed by the Rev. Charles S. Medbury in the lounge of the University Church of Christ. Dr. Chase and his bride left Des Moines, Saturday evening, on a motor trip in the north.

Wednesday, June 18, Miss Mabel Thomas was married to Dr. C. A. Johnson, of Moorhead. The ceremony took place on the lawn of the Merton Thomas home near Dow City. The bridegroom is a graduate of the University of Illinois and has practiced medicine in Onawa, Dow City and Moorhead. Dr. and Mrs. Johnson left immediately after the ceremony for an extended trip and will be at home after August 1st in Moorhead.

Miss Ethel Short of Cedar Falls and Dr. Joseph Vander Veer, son of Dr. and Mrs. F. L. Vander Veer of Blue Grass, Iowa, were married Thursday, June 26, in Cedar Falls. Dr. Vander Veer is a graduate of the State University College of Medicine, and during the past year has been serving his internship in the Montreal General Hospital. After August 1st, he will be a part-time instructor in pathology in McGill University, Montreal.

DEATH NOTICES

Latchem, Raymond L., of Sioux City, died June 22, at the age of forty-five; graduated in 1911 from Rush Medical College. At the time of his death he was a member of the Woodbury County Medical Society.

Newberry, Arthur D., of Burlington, died May 25, at the age of fifty-four as the result of a two years'

CORRECTION

In the June issue of the Journal an unfortunate error was made when a death notice for Dr. J. C. Boice of Washington, Iowa, was printed in this column.

His son, Dr. C. A. Boice, Councilor for the First District, writes, "He has not even been sick," which is certainly a cause for congratulation to Dr. J. C. Boice and all his friends, since the doctor is in his eighty-fourth year.

illness; graduated in 1898 from the College of Physicians and Surgeons, Keokuk. At the time of his death he was a member of the Des Moines County Medical Society.

THEY COME AND GO

The following story from the Emmetsburg Democrat apparently presents the final chapter which seems to duplicate the oft told story of the untrained healer. This is printed because of the fact that in the past two years many members have written the state office inquiring about the Orttons.

"James P. Jones informs us that the Russian doctor at Canistota, South Dakota, which is not far from Parker, has practically lost his immense patronage. For two or three years people having ailments crowded the busses and the hotels of that locality in order to receive treatment. Only normal charges were made for handling cases and hotel rooms and meals could be had at reasonable prices. However, for some reason the public lost faith in the head of the institution and patients are going elsewhere. Mr. Jones says that people of the town, who took stock in the fine new \$80,000 hotel at Canistota are about as sore as the Iowans who were caught in the Wall Street stock slump. Many Emmetsburg people went to Canistota during the past three or four years. Some report that they were benefited but others were disappointed. The doctor who can satisfy all classes of patients is in luck."

UNITED STATES CIVIL SERVICE EXAMINATION

The United States Civil Service Commission announces the following open competitive examination:

Associate Bacteriologist (Medical)

Applications for associate bacteriologist (medical) must be on file with the Civil Service Commission at Washington, D. C., not later than July 30, 1930.

The examination is to fill a vacancy in the position of Clinical Laboratorian, U. S. Veterans' Bureau Hospital, Palo Alto, Calif., and vacancies occurring in positions requiring similar qualifications throughout the United States.

The entrance salaries range from \$3,200 to \$3,700 a year. Higher-salaried positions are filled through promotion.

The duties are to direct the technical work of the clinical laboratory; to supervise and to perform individually technical work in pathology, bacteriology, serology, chemistry, and research; to act in a consulting capacity with the staff on scientific matters in the absence of the pathologist; to perform related duties as assigned.

Competitors will not be required to report for examination at any place, but will be rated on their education, training, and experience, and on a thesis or publication on some subject related to bacteriology or pathology.

Full information may be obtained from the United States Civil Service Commission at Washington, D. C., or the Secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

DR. WILLIAM JEPSON, Sioux City

DR. FRANK M. FULLER, Keokuk

DR. ARTHUR D. WOODS, State Center

DR. WALTER L. BIERRING, Des Moines

DR. NORMAN F. MILLER, Iowa City

During the last year of Doctor Fairchild's life, he forwarded a number of installments of Iowa Medical History to the office of the Journal. After his death further historical matter was found with the collection of papers and books presented to the State Medical Library.

The Committee is arranging this in chronological sequence, and it will be published serially in succeeding issues of the Journal.

As an introduction to the series, the following letter is submitted:

Clinton, Iowa.
September 18, 1929.

Dear Doctor Bierring:

I have had some correspondence with the editor of the Journal relative to publishing the historical material we are gathering. Fifty years ago and more, or in the earlier days of the State Medical Society, there was an historical background to the practice of medicine. At that time we thought of the men of the past and their contributions, now our thoughts are more specifically directed to some new technic. But there is a growing tendency to preserve enough of the records of the past to construct a relationship with other activities, to give medicine a place in history. There is little interest in the subject, but there are a certain number of men in the profession, particularly in the great universities, interested in keeping the subject alive. Most of the states are gathering material to be laid aside for some future medical historian to put together. This comes perhaps too late for authentic history and many of those interested regret that only scraps of our medical history may be found here and there.

I began this work under a resolution presented by Dr. A. P. McCullough to the State Medical Society in 1875. It was a comparatively easy task then, for most of the first physicians in Iowa were still alive and many more of a near first generation were in active practice. My first papers were preserved and much more data has been accumulated; much of this matter has been published. Iowa has not a history like Illinois, Missouri, Kentucky and Minnesota; the days of frontier adventure had passed when Dr. Andros came to Dubuque and Dr. Galland came to Montrose, but still there is something worth while.

I had in mind the gathering of material for history arranged in chronological order covering the first 100 years, extending from 1820 to 1920. For the first fifty years, or to 1870, the strong men of the profession were state characters, but since 1870 most are local, so with the data at hand I have ten chapters, including a general introduction, yet there is a long interval of county history to be filled in.

I hope to get an extension of the work since 1870, including counties, from the committee with such help as I can give them. My first object is to get together data for the State Society of historical value for the future.

I know very well that the work will be done by a very few.

Yours truly,
D. S. FAIRCHILD.

The Practice of Medicine in Iowa in Early Days and After 1870

D. S. FAIRCHILD, M.D.*

PART I.

Doctors in an early day settled in Iowa as did other people for the purpose of gaining a living or for the purpose of acquiring a professional reputation. There were physicians who sought adventure, particularly young or middle aged men who had in mind greater experience and wealth.

*Deceased.

There were men who had found life in older communities uninteresting and entertained the hope of a wider range of activities and larger opportunities. There was apparently a feeling that in a new field an early failure might be followed by success. The practitioner of middle age who had struggled for many years among the hills of the older states, saw in new fields opportunities for progress that had been denied to him. As time passed, more definite plans gained force in securing a home and an establishment for the future. We recall our old family physician who, after many years of small gains, turned to the new states that were building railroads and were seeing in the future the possibilities of growing towns. Dr. Brown did not know much about scientific medicine, but he knew much about how people felt. From time to time when we were in distress, he in a kindly and helpful manner pointed out the safe course to pursue. It is true that Dr. Brown knew but little of medicine and that the medicine he gave out in full confidence of its value and efficiency, had very little or no effect on the disease, but his presence in the house and his hopefulness gave us assurance and confidence.

* * * *

When medicine came to be recognized as a distinct profession, with traditions that lead far back into the past and had been accepted as a distinct subject for historical study, we began to write about it. We did write about William Harvey, Jenner, and many others, not as doctors, but on account of the individual discoveries they made, so it may follow that the individual doctor may disappear among the great medical institutions and the mass production.

In 1875 the first steps were taken to lay the foundation for a medical history in Iowa, and we are able to see the individual fade and some influence appear with machinery capable of controlling the medical affairs of the country. Objections are being made on the ground of a dangerous autocratic power which might destroy the individual independence of the medical profession. This seems to be safe-guarded by the organization of physicians of counties into county medical societies, and through the county to the state medical society, and through the state medical societies to the American Medical Association. The machinery of operation is through a delegate system which would appear to insure safety.

The written history of medicine in Iowa began in 1875 by the appointment of a committee by the State Medical Society to secure data concerning the arrival of physicians in Iowa and their services to the Territory and the State. There were

but few settlers when the first physicians came to Dubuque, Burlington and Iowa City in about 1835, and therefore it could not be expected that the field of actual medical practice would be large, but there was the spirit of adventure and the witnessing of the growth of a new country. In the older sections of the New England and Atlantic Coast binding traditions governed men's lives, whereas in Iowa in 1870, or earlier, men mapped out their own destinies.

About 1870 we began to feel in this state that there was a field where medicine could expand beyond empiricism. In the eastern states the practice of medicine had reached a rather definite status and was classed as one of the learned professions; but in the western states, rapidly filling up with pioneers, medicine had not reached a very definite status. Such faith was there in drugs and medicine that a man after a few weeks of study could gain enough knowledge of drugs to avoid dangerous medicines. In 1870 nearly one-half of the doctors in Iowa were practicing without taking a course of study. These men as a rule did not remain long in any community. There was another half that had had the advantages of a medical college course and were generally the permanently settled doctors, not enjoying, perhaps, a larger or more lucrative practice, but enjoying the comforting consciousness of a higher culture.

For a long time it was felt that the medical profession could do better, and under the influence of this belief, medical organization was slowly spreading. Very few local or county societies were more than a year or two old, but these short periods of activity inspired a belief in the minds of a few that there was a better future, and after a period of a few months or years, the society was re-organized on a better basis, and with greater success. Yet it may be said, there was but little encouragement for the educated physician in Iowa in 1870 and for several years thereafter. The pioneer settler did not bring much wealth, but on account of many hardships and lack of good sanitary conditions, suffered much sickness, particularly typhoid and malarial fever. Then the long distances and bad roads—sometimes a doctor would start out to make his rounds and not get home for two or three days.

Report of Committee on Necrology; Iowa Med. Jour., May, 1900, p. 227:

The chairman of the committee at the State Society meeting in Des Moines, May 16-18, 1900, was the late Dr. C. F. Wahrer* of Ft. Madison, and his report contains the following literary gem:

*Dr. C. F. Wahrer was the father of Dr. Frederick L. Wahrer of Marshalltown.

"We succeeded only too well in receiving so many reports of deaths of members. Of the deceased brethren I knew many; they were true types of the best in our ranks; they fell in the front with their armor on, doing good to all who were fortunate enough to obtain their services. Most were in the prime of life, few became what we call old in years, but if 'That life is long which answers best life's end' they were old in deeds, golden deeds, and now they are promoted to serve on the staff of the Chief Physician. May the grass wave lightly over their bosoms, the spring zephyrs waft sweet incense over their resting places, and may there arise from each tomb the spirit of a new life to reinspire those who here will take the places of the departed. Even when autumn is here and yellow leaf falls sadly to the ground and winter's chilly winds moan requiems in the places now made waste, yet we know Young Spring will come again with buds and flowers, the token of new hope and new life for,

'There's nae sorrow, there, John,
There's neither could nor care, John;
The day is aye fair, John,
In the land o' the leal.' "

DR. SCARBOROUGH LEAVES OAKDALE

Dr. H. V. Scarborough, who has been superintendent of the state sanatorium at Oakdale for nearly twenty years, has recently resigned to take up the superintendency of the Marion County Sanatorium at Indianapolis, Indiana. Dr. James A. Edwards, of the medical staff of the Feeble-Minded State Institution, at Glenwood, has been appointed to take Dr. Scarborough's place as superintendent of Oakdale.

SOCIAL WORKERS SEEK MEDICAL COOPERATION

Prominent position was given to the subject of cooperation of social workers with physicians, on the program of the summer conference of Iowa Rural Social Workers held at the University of Iowa, June 25 to 28.

On the morning of Thursday, June 26, Miss H. Ida Curry, of New York, spoke upon Inter-Professional Relationships in New York State; and Professor Stuart A. Queen, University of Kansas, talked upon Inter-Professional Relationships in the Middle West. Both of these and particularly the latter stressed the necessity of social workers cooperating with the medical profession and the county medical society.

In the afternoon, Dr. Milford Barnes, Professor of Hygiene and Preventive Medicine, State University of Iowa, delivered an address upon The Public Health Program of Iowa, in which the county health unit was discussed; and a talk upon The Relationship of Social Workers and Physicians in Iowa was made by the managing director of the State Society, Mr. Vernon D. Blank. Mr. Blank's address was based upon the actions and resolutions of the Medical Eco-

nomics and other committees of the state society, and had as its theme the proposition that social workers, as a step in professionalizing their work, should attempt to avoid health work as such and that in all cases where health activities were undertaken they should seek the advice, approval and support of the county medical society.

Special emphasis was placed upon the advantages of a contract between the county medical society and the board of supervisors for the care of the indigent sick as a recommended means of avoiding the main causes of difficulties between social and medical work.

SENIOR MEMBERS OF IOWA STATE MEDICAL SOCIETY

The following men have been active members of the Iowa State Medical Society for fifty years or more: Drs. Edwin Burd of Lisbon, and M. G. Sloan of Des Moines, who became members in 1877; Dr. William M. Park of Indianola, whose membership dates from 1879; and Drs. Smith A. Spilman of Ottumwa and H. B. Young of Burlington, who have been members since 1880.

We believe that these are the members of longest standing, but if there are others who have been active for as long a period, we should like to hear from them.

CANADA—A VACATION GROUND

In a recent communication from the National Resources Intelligence Service of the Department of the Interior at Ottawa, Canada, the attention of the physicians of Iowa has been directed to a service available upon request from the Department covering information relative to highways, camping and fishing grounds, sight-seeing, etc., throughout the Canadian provinces. Any physician anticipating a pleasure trip to Canada can secure valuable information through this Bureau upon request. Some indication should be furnished relative to the points to be visited, since detailed maps and information can be secured only in this manner.

SEX HYGIENE AND MOTION PICTURES

The recent issue of "The Motion Picture" gives notice of a suit being brought by Mr. Ivan Abramson and the Graphic Film Corporation, naming forty-eight individuals and corporations in the motion-picture industry. The letter claims that Mr. Abramson's misfortune and cessation of importance in the motion-picture industry is due to the type of picture which he persistently produced and offered for exhibition, as, "Enlighten Thy Daughter," "Sex Lure," and "Forbidden Fruit." The responsible elements in the motion-picture industry, exhibitors, distributors, and producers alike are anxious to have this case come to trial, because they have reached the conclusion that the theater is not the place in which to attempt the instruction of youth in sex hygiene, as that duty belongs to the home, the medical profession, and the school. It is interesting to have this concerted opinion of the motion-picture industry.

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

MODERN OTOTOLOGY—By Joseph Clarence Keeler, M. D., F. A. C. S.—Price, \$10.00, Net—Philadelphia, F. A. Davis Company Publishers, 1930.

INFANT NUTRITION—By Williams McKim Marriott, B.S., M.D.—Illustrated—Price, \$5.50—C. V. Mosby Company, St. Louis.

RADIUM IN GENERAL PRACTICE—By A. James Larkin, B. Sc., M.D., D. N. B.—Illustrated—Paul B. Hoeber, Inc., New York. Price, \$6.00.

TRAUMA, DISEASE, COMPENSATION—By A. J. Fraser, M. D.—Price, \$6.50, Net—Philadelphia, F. A. Davis Company Publishers, 1930.

NORMAL FACTS IN DIAGNOSIS—By M. Coleman Harris, M. D. and Benjamin Finesilver, M. D.—Price, \$2.50, Net—Philadelphia, F. A. Davis Company Publishers, 1930.

MINOR SURGERY—By Arthur E. Hertzler, M.D.—Second Edition, with 475 illustrations—Price, \$10.00—C. V. Mosby Company, St. Louis.

RESEARCH AND MEDICAL PROGRESS AND OTHER ADDRESSES—By J. Shelton Horsley, M.D.—The C. V. Mosby Co., St. Louis, 1929—Price, \$2.00.

PHYSIOLOGY AND BIOCHEMISTRY IN MODERN MEDICINE—By J. J. R. MacLeod, M.D., LL.D., D.Sc., F.R.S., assisted by Roy G. Pearce, A. C. Redfield, N. B. Taylor, and J. M. D. Olmstead, and by others—Sixth Edition with 295 illustrations, including 9 plates in colors—Price, \$11.00—C. V. Mosby Company, St. Louis.

CLINICAL FEATURES OF HEART DISEASE—By Leroy Crummer, M.D.—Second Edition, revised and enlarged—Price, \$4.00—Paul B. Hoeber Company, New York City.

CERTIFIED MILK CONFERENCES—Held in 1929 by American Association of Medical Milk Commissions, etc.—American Association of Medical Milk Commissions, 360 Park Place, Brooklyn, New York.

ALLERGIC DISEASES—By Ray M. Balyeat, M.A., M.D., F.A.C.S.—Illustrated with 87 engravings including four in colors.—Third Edition, revised and enlarged, as Their Diagnosis and Treatment.—Price, \$5.00, net—F. A. Davis Company, Philadelphia.

NEW AND NONOFFICIAL REMEDIES—Containing Descriptions of the Articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1930. Price \$1.50. American Medical Association, Chicago, Illinois.

MANUAL OF THE DISEASES OF THE EYE—For Students and General Practitioners—By Charles H. May, M.D.—Thirteenth Edition, Revised.—With 374 original illustrations, including 23 plates, with 73 colored figures.—William Wood and Company, New York, 1930.—Price, \$4.00, net.

SURGICAL CLINICS OF NORTH AMERICA—Volume 10, No. 3. (New York Number—June, 1930.)—Per Clinic Year—Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London. W. B. Saunders Company.

BOOK REVIEWS

A BOOK FOR US DIABETICS AND OUR DOCTORS

By Don H. Duffie, M.D. Published by the Author, 1929, South Lancaster, Mass., U. S. A. Price, \$1.50, postpaid.

This manual of 120 pages has been prepared for the guidance of the patient afflicted with this disease. The author has attempted to include all the information relative to the condition or its treatment which is required by diabetic patients, and at the same time to omit every consideration which is not so demanded. The simple language used throughout makes the book especially useful to the patient of limited education. It has not been my good fortune to review a manual which, because of the author's rare sense of humor, presents the subject in a more attractive form. His optimism will go far towards sustaining the morale of this group of patients. The volume is adequately illustrated.

OBSTETRICS FOR NURSES

By Charles B. Reed, M.D., F.A.C.S. Professor of Obstetrics, Northwestern University Medical School; Chief Obstetrician Wesley Memorial Hospital, Chicago, and Charlotte L. Gregory, R.N., B.S., M.D. Adjunct in Obstetrics at Wesley Memorial Hospital; Clinical Assistant in Obstetrics at Northwestern University Medical School, Chicago. One hundred forty-four illustrations including two color plates. Third Edition. St. Louis. The C. V. Mosby Company, 1930.

The third edition of this well known book is a re-

vision of the widely used second edition. The author has eliminated obsolete theories and practices and in their stead made use of new and up-to-date methods. The book is gotten up in his unique manner, being brief, yet decidedly to the point; and contains practically all the nurse should be required to know in Obstetrics.

The book is divided into twenty-five chapters, dealing with Pelvic Anatomy and Physiology, Normal Pregnancy, Prenatal Care and the Preparations, Course, Mechanism and Care of the Patient During Normal Labor. The question of Abnormal Pregnancy and the Complications of Labor are considered in detail, including chapters on Operations and Unusual Presentations and Positions. The Care of the Patient and Child During and After the Puerperium is discussed very clearly. There are also special chapters on Infection, Cleanliness and Sterilization, Diets and Infant Feeding.

The book is profusely illustrated wherever clearness could be emphasized by this method.

F.W.R.

METHODS AND PROBLEMS OF MEDICAL EDUCATION

Seventeenth Series, The Rockefeller Foundation.

This seventeenth annual report from the Rockefeller Foundation, indicates the advances which have been made in medical teaching, the organization of new medical schools, the housing and new equipment supplied to medical schools already existing, and gen-

eral impressions of the trend in medical education throughout the world.

Information relative to this study may be obtained from the Rockefeller Foundation, New York City.

THE MIND AT MISCHIEF

Tricks and Deceptions of the Subconscious and How to Cope With Them. By William S. Sadler, M.D., F.A.C.S. Formerly Professor at the Post-Graduate Medical School of Chicago; Senior Attending Surgeon to Columbus Hospital, etc. Introductions by Robert H. Gault, Ph.D., Professor of Psychology, Northwestern University, and Meyer Solomon, M.D., Associate in Neurology, Northwestern University Medical School. Funk & Wagnalls Company, New York, 1929. Price, \$4.00.

This volume presents a practical non-technical discussion of psychological problems presented in a straight-forward manner. The author has not followed any of the recognized schools of psychologists but appears rather to have selected the best and most reasonable from each of these schools. Presenting the subject as he does for the lay reader, he has omitted tedious technical discussions whenever possible and has generously illustrated the points advanced by typical case histories. His grouping of the various human impulses under five headings and the

classification of primary emotions in twelve groups form a very sound basis for his analysis.

Special attention is devoted to a critical analysis of the so-called psychic phenomenon with some discussion of occultism and hypnotism. A careful reading of this volume will furnish the physician with a very clear appreciation of the problems to be overcome in the treatment of neurotic, psychasthenic or hysterical patients. Certainly individuals with tendencies towards pathological, psychological states will derive great benefit from the perusal of this volume.

THE SURGICAL CLINICS OF NORTH AMERICA

The Surgical Clinics of North America (Chicago Number). Issued serially, one number every other month. Volume 10, No. 2 (Chicago Number, April, 1930). 252 pages with 72 illustrations. Per clinic year (February, 1930 to December, 1930). Paper, \$12.00; Cloth, \$16.00. Philadelphia and London. W. B. Saunders Company.

This is an usually good practical number. Most of the articles are based on common surgical conditions with rather uncommon symptoms or complications.

Drs. Wilhelm C. Hueper and Lester E. Garrison have a very good article entitled "Agranulocytosis and Its Surgical Aspect," with a concise description of the disease and its treatment. F.W.F.

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THE INTERNIST'S RESPONSIBILITY FOR THE FRUITLESS LAPAROTOMY*

O. H. PERRY PEPPER, M.D., Philadelphia

Introduction. The layman is fond of attributing to our profession the use of the phrase "the operation was successful but the patient died." In many tragic instances this is the truth but often the apparently unhappy result is truly a blessing in disguise, as for example in certain cases of incurable carcinoma. Far more frequent and often no less tragic, however, are the abdominal operations after which it might well be said "The patient lived but the operation was unsuccessful."

I have called such unsuccessful abdominal operations by the term fruitless and by this I mean fruitless of good; often unfortunately they are only too fruitful of harm, in the accentuation of a neurosis, in the production of adhesions or in the exaggeration of symptoms from the undiscovered lesion for which the operation was performed.

It is concerning these fruitless laparotomies that I wish to speak today; concerning some of the causes for them and concerning the internist's share of responsibility for them. To illustrate my thesis, I plan to present at some length the picture of two important intra-abdominal lesions which well illustrate the difficulties of abdominal diagnosis and the unavoidable responsibility of the internist in the face of these difficulties. These two conditions, which I have chosen for this purpose, are chronic duodenal obstruction and polyp of the stomach. Both have been interesting us very much recently at the Hospital of the University of Pennsylvania.

There is no need our reviewing together today the long list of causes of mistakes in the diagnosis of abdominal disease. We have each of us in our memories a group of such mistakes which we would be glad to forget if it were not that by remembering them we may be prevented from a

repetition of the error. But perhaps we should touch briefly on a few aspects of this subject and a few of commoner reasons for the discouraging report, "the findings at the laparotomy did not explain the patient's symptoms" or for the even more discouraging failure of a supposedly curative operation to bring about relief of the symptoms for which it was performed.

The pitfalls differ in acute and chronic cases. In the former, with the apparently emergency conditions which are usually present it is not surprising that mistakes are made. Often it is safer to risk performing a needless laparotomy than to insist on waiting until one is sure of the diagnosis, by which time if the lesion be abdominal it may be too late to accomplish anything by operation. In this group of conditions angina pectoris with abdominal reference of pain comes to mind at once; and also lobar pneumonia with epigastric pain from diaphragmatic pleurisy; acute lead colic, so-called intestinal gripe, and many others. One must not be too quick to criticize mistakes in such acute cases. A certainty of diagnosis often seems to be impossible and we are all liable to error. It is in these acute cases that the surgeon seems to me to excel the internist in diagnostic skill. It is not on these acute cases but on the more chronic ones that I wish to place the emphasis.

In chronic cases the number of diagnostic pitfalls which may lead to a fruitless laparotomy is even greater than in the acute but the very chronicity alters the problem by giving us plenty of time to make our studies and to prove our diagnosis. It is in the chronic case that we should be quick to censure hasty surgery; the conditions which excuse errors in acute cases do not hold in the chronic. In the acute emergency it is the surgeon whose opinion is the more valuable and I willingly grant him the responsibility and the credit. In the chronic case the internist should excel and much of the responsibility and the credit or discredit should be his.

It is impossible to enumerate all the possible mistakes which in the chronic case may lead to

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error; a vast number of errors of diagnosis may lead to a fruitless laparotomy. In a general way these causes of error may be divided into groups, one including the cases in which the real cause of the symptoms for which laparotomy is performed is not in the abdomen at all, the other made up of those in which although the trouble is in the abdomen it is not discovered at the operation.

In both groups the mistake is a diagnostic one. In the first group a distant cause of abdominal symptoms is overlooked, in the second an incorrect diagnosis leads to such an incision or to such a surgical procedure as to leave the true symptom-producing lesion unrelieved.

Of course we can omit from discussion those instances in which it is sometimes said that the laparotomy was fruitless because an inoperable lesion was found. This finding itself is adequate justification in that the diagnosis is made sure, the prognosis determined and treatment may then be centered on palliative measures.

It is the various specialists who are particularly critical of the failure of the physician and surgeon to avoid laparotomy in cases where the true cause of symptoms lies outside the abdomen. The urologist¹ is justified in reiterating to us that we frequently permit laparotomy to be performed when the true lesion is a ureteral stricture, or a calculus in the ureter or kidney pelvis. Usually, the appendix is removed, found to be somewhat chronically diseased and optimism reigns until the former symptoms are found to continue or return.

The orthopedist stresses the simulation of intra-abdominal troubles by the pains referred from a hypertrophic spondylitis or other spinal disease or postural defect. Our failure to recognize such cases offers the osteopath one of his extremely rare opportunities for usefulness. That "intercostal neuralgia" often masquerades as appendicitis is quite properly kept in our attention by Carnett² and the neurologists fortunately never tire of reminding us of the likelihood of mistaking the gastric crisis of tabes for intra-abdominal troubles. Only recently I examined a patient with tabetic crises with another physician who cynically remarked that he could not remember ever seeing such a case without a laparotomy scar.

The second group includes the cases in which the cause of the patient's symptoms is in the abdomen but is not discovered at laparotomy. This sounds like the opening gun of an attack upon the surgeon; my intention is far otherwise. I wish to stress the fact sometimes forgotten by the physician that in the final analysis the success of an abdominal operation often depends upon the incision selected and the choice of incision will in turn be determined by the preoperative diagnosis.

And since the preoperative diagnosis is or should be in large measure the responsibility of the internist, he thus becomes even more responsible for any fruitless laparotomy.

Far from attacking the surgeon, I am assuming in this paper that given an operable lesion correctly diagnosed preoperatively the success of the operation is assured. I only wish that this was always true. Many difficulties conspire to prevent its being so.

A far greater probability of failure exists if the preoperative diagnosis is incorrect. This is particularly true when an operation has been performed under the mistaken diagnosis of appendiceal disease. The incision is then so placed and may be so small as not to permit satisfactory inspection of other parts of the peritoneal cavity. Especially does the upper abdomen escape inspection in such instances resulting in the overlooking of such lesions as ulcer of the duodenum, periduodenal veils, cholelithiasis and gastric polyp.

One might argue that the surgeon should explore further if the appendiceal diagnosis is not confirmed upon exposure of this appendage. Unfortunately this is a difficult matter; the appendix frequently is not altogether normal, the diagnosis seems to be confirmed, the organ is removed, no further search is carried out and the patient's symptoms persist unchanged. Even if the surgeon suspects that the appendix reveals pathology inadequate to explain the case, he may properly hesitate to make the further incision needed to permit of wide exploration. How often we see patients with upper abdominal disease who have undergone a needless appendectomy!

Even granting a free access to the upper abdomen it is not impossible for a surgeon to overlook certain lesions of importance if his attention is directed in some other direction by a mistaken preoperative diagnosis. Many lesions are not apparent and must be specifically searched for to be found; in this category are included periduodenal bands, polyps within the stomach and abnormal positions of the hepatic flexures.

Theoretically any abnormality will be discovered at an exploratory laparotomy, practically much depends upon the preoperative study and diagnosis. This is one good reason why the operating surgeon should "know the case." If he does not, he is far more dependent on the preoperative diagnosis which has been made correctly or incorrectly by others.

Ultimately the responsibility should come back to rest on the physician; the internist who has studied the case and who knows the patient. It is his duty to make the diagnosis and not to be

tempted into the easy uncertainty of an exploratory laparotomy.

Let us now consider the first of the two conditions which I have selected to illustrate my thesis.

Chronic Duodenal Obstruction is a most interesting and important topic which has not yet received the attention it deserves. Only recently have we learned to recognize this condition with any degree of certainty and frequency. It has long been known to occur but it is still very often overlooked and is I believe one of the most frequent causes of the fruitless laparotomy. Because of the very varied symptomatology which may arise from duodenal obstruction the victims are operated upon under any one of various mistaken diagnoses. In still other instances the picture may closely simulate pure neurasthenia and no operation is attempted.

Chronic duodenal obstruction has had other names applied to it; each expressing a view concerning the nature of the lesion, thus for example, stenosis of the duodenum, chronic duodenal ileus, arteriomesenteric ileus, periduodenitis. In every instance the obstruction is due to adhesions, veils, membranes or bands which in but very few instances have resulted from neighboring inflammation, as for example from gall bladder infection. In the majority of cases the constricting bands are of congenital origin. According to their exact anatomical site these bands bear various descriptive names or they carry the name of their chief describer: Harris' membrane, Kirk's band, Mayo's band, the ligament of Treitz. The generalization attributed to Morris that "there are cobwebs in the attic of the abdomen" is apt and sufficient for our purpose.

Duval, Roux and B  cl  re³ in their most valuable book on the duodenum, divide all periduodenal adhesions into the supramesocolic and the submesocolic. The former term applies to adhesions on the duodenal bulb, the latter to adhesions on the third and fourth portions of the duodenum and even on the jejunum. Some are broad veils, others narrow bands and in still other instances the mesenteric pedicle compresses the third portion of the duodenum.

Any grade of stenosis, angulation or partial occlusion may occur; in some instances intermittently, in others constantly. A very interesting phase of this matter concerns the many years during which these congenital bands may be present without causing any symptoms whatever. This is not always true; sometimes definite symptoms appear in childhood, or in adults a vague history of indigestion can be traced back into childhood. When after long years of health, symptoms of duodenal obstruction appear, their onset is usually

due to some coincident factor such as weakening of the abdominal wall, constipation or loss of weight. Pregnancy, for example, or some weakening disease will permit a greater drag on the duodenum converting a harmless peritoneal reflection into a sharply constricting band. Ptois of the large bowel or colonic stasis will act similarly.

Once even a moderate degree of constriction has developed a serious vicious circle becomes established which may soon lead to invalidism and even death. Increasing constipation accentuates the ptotic drag, while increasing loss of weight and strength accentuate the ptosis. The chronic duodenal obstruction soon leads to duodenal retention with dilation. Secondary gastric retention and dilatation follow soon after. Appetite is lost, nausea and vomiting occur, and the most extreme degrees of cachexia may result.

Symptoms of two kinds are recognized; the mechanical and the toxic. In the former group are constipation, nausea and vomiting; in the latter a most amazing variety. All writers on this subject stress the close resemblance of certain cases to aggravated neurasthenia. Very striking is the picture—with marked fatiguability, headaches, nervous depression, incapacity for work and a loss of weight and strength which may become extreme.

The diagnosis in the patients with symptoms of the mechanical group is suggested by the usual symptom picture of obstruction, but when the so-called toxic symptoms predominate, the underlying lesion can readily be overlooked. Many of these patients are condemned under a purely functional diagnosis.

Dr. Katherine S. Andrews, working in the Gastro-intestinal section at our University Hospital in Philadelphia, has recently⁴ reviewed our series of forty such cases. Eleven complained of headache, nine of easy fatiguability, six of mental depression. Constipation was the rule, and gas, eructations and abdominal discomfort also were common. Actual abdominal pain was noted by seventeen; often this came on one-half to two hours after meals. Few obtained relief from food. Most often the epigastrium was the site of the pain but the other abdominal quadrants did not escape.

Periodicity of symptoms such as is common in ulcer is not the rule. Nausea and vomiting may be wholly absent; hematemesis does not occur. Gastric acidity may be normal or changed in either direction.

Diagnosis should be suspected by the internist and can always be confirmed by roentgenologic study, the chief points in the X-ray evidence in-

cluding dilatation and stasis in the duodenum with slow emptying of the duodenum and perhaps of the stomach. Sometimes antiperistalsis and a churning of contents to and fro in the duodenum is observed. Sometimes a constant defect, especially in the upright position, of the duodenal cap is seen; such a defect may be mistakenly interpreted as being due to duodenal ulcer.

Even such a brief review of this topic makes it clear, I am sure, not only how readily the diagnosis can be overlooked by the internist but also how easily the surgeon may fail at operation to find the constricting veil or band unless the incision is adequate and a direct search is made for this certain lesion. That this statement is true is proved by the fact that a large proportion of these cases have already had a fruitless appendectomy.

And it is well worth while making a correct diagnosis in these cases for surgical treatment is most efficacious; the operation of choice being a duodeno-jejunosomy, thus short-circuiting the point of obstruction. Sometimes surgery is not needed if the lesion is recognized early before duodenal dilatation has occurred. Exercises to strengthen the abdominal walls, improvement in posture, gain of weight and avoidance of constipation will prove adequate in some instances.

Brief case reports on two patients will re-enforce these remarks.

CASE I. A boy, fourteen years of age, was referred to me for final decision as to an operation for supposed subacute appendicitis. The operation had been agreed upon by a pediatricist and a surgeon. The boy's symptoms consisted chiefly of frequent attacks of pain centering about the umbilicus—all but two of the attacks occurred during the daytime and they often followed exercise. There never was fever nor vomiting.

The doubts which this atypical history threw on the diagnosis of appendicitis were strengthened by the further findings. He had been a premature baby and had developed slowly; requiring a bilateral operation for undescended testicle. His musculature was poor and a potential umbilical hernia was present. In general, he was undersize and presented the picture of early rickets. In addition, his eating habits were very bad, diet poorly chosen and bowel function neglected.

Routine laboratory examinations were normal.

On these findings operation was strongly advised against and a tentative diagnosis of congenital adhesions was suggested, the attacks of pain being attributed to the increased pull during exercise of the constipated colon on the kinked duodenum. A gastrointestinal roentgenologic study was requested. The findings confirmed the

diagnostic suspicion. A congenital veil, involving the pylorus was demonstrated and probably a second one on the duodenum. There was slight residue in the stomach which organ appeared somewhat larger than normal. The appendix was visible, not adherent and not tender.

The subsequent course of this boy seems to justify our decision not to remove the appendix. A simple program of exercise and care of bowel function was instituted. He has improved very much and only has pains when he relaxes his care of diet and bowel function. Operation for relief of the veils may yet be necessary but certainly appendectomy is not indicated nor could the upper abdominal troubles have been diagnosed or relieved through the usual appendectomy incision.

CASE II. Miss V. H., nineteen years of age, was seen by me in May, 1929, in consultation with Dr. P. H. Parker, because of progressive exhaustion, headaches and dizziness. These symptoms had been present for about three years during which period a great many studies had been made and many treatments employed. In spite of every effort she had become more and more of an invalid. During this period, however, she had lost only five pounds. Constantly there was a trifling fever seldom reaching one hundred degrees.

This disease picture had been attributed by many of her doctors to sinus infection but most thorough treatment by various specialists failed to influence her condition whatever. She was studied in New York, in Philadelphia and under Doctor Riggs at Stockbridge.

The outstanding features upon examination were the undernutrition and a markedly ptotic habitus. No abnormal physical signs were found in the lungs but repeated X-rays showed "at the root of the left lung a very considerable area of density evidently made up of a conglomeration of calcified tubercles with sharp demarcation from the surrounding lung fields." Several small isolated calcareous tubercles were seen in the periphery of the lungs.

All routine laboratory examinations were essentially normal.

In spite of the fact that a tuberculosis specialist in New York and another in Philadelphia did not believe that the X-ray evidence justified such a diagnosis, I gave my opinion that there was a smouldering hilus tuberculosis present which would explain the clinical picture including the fever. The patient was, therefore, sent to Trudeau at Saranac, where they also failed to agree with my diagnosis. However, she was given a rest cure and forced feeding for several months without the slightest improvement.

In February, 1930, nine months later, the pa-

tient reentered our University Hospital in obviously worse condition. All her former symptoms had continued; her weight had continued to fall, she was constantly exhausted and good for nothing. In addition, she now for the first time constantly complained of vague abdominal discomfort. A repetition of all studies led to no new findings but a gastrointestinal X-ray study revealed an extremely large duodenal cap which was constantly filled. There was very marked distension and stasis in the second and third portions of the duodenum, and a constant and vigorous churning was present in this portion of the duodenum throughout the examination. The roentgenologic diagnosis by Doctor Pancoast read, "Stomach: marked residue with considerable ptosis. Duodenum: Stasis due to mesenteric occlusion, ligament of Treitz or possible congenital veil."

At operation by Dr. George P. Muller, congenital adhesions were found between the free liver edge and the first portion of the duodenum. The entire duodenum was greatly dilated and its retroperitoneal portion extended considerably further than is normal and looped back up around the ligament of Treitz. All adhesions were freed and a duodenojejunostomy was performed. No evidence of tuberculosis was seen.

I wish I could report that this girl had strikingly improved but the truth is that she has not. I was very hopeful. She seemed to present the typical symptoms of the toxic form of duodenal obstruction. Fever was the outstanding exception. There is no doubt the obstruction was present and that it was relieved by the operation, later X-rays proved. No one seeing her duodenum in X-ray or at operation could fail to believe that it must cause serious digestive disturbances. Whether she will soon improve or whether we have failed to find some underlying factor in her case, I do not know. My belief still is that she has a low grade tuberculosis which sufficiently reduced her weight and strength to permit a previously silent duodenal kink to become more marked and symptom-producing. No doubt her marked stasis is also a factor. Altogether it has been to me a most interesting but pathetic case.

There are many other topics that I might employ to illustrate my thesis. For example, hematemeses with the temptation to jump to the conclusion that it has arisen from ulcer. It is so easy to be momentarily forgetful of esophageal varices, and other rarer causes such as the free hematemeses which may follow severe vomiting, especially after an alcoholic debauch.

We might consider the abdominal manifesta-

tions of allergy which occasionally lead to a useless laparotomy. Or we might discuss the difficult topic of the neuroses. Barker⁵ in a recent article writes that it has been his experience "to see mistakes made through assumption of organic disease and through failure to conceive of the symptoms as being possibly due to a neurosis oftener than in the opposite direction. It is these mistakes that have led so often to superfluous abdominal operation."

It seems to me that the topic of gastric polyp lends itself best to our theme of today.

Polyp of the Stomach. There are many analogies between periduodenal bands and gastric polyps. Both may exist for many years without causing symptoms, both may become symptom-producing as a result of the causing of obstruction, although in the case of polyp, hemorrhage and malignancy are more important complications. Both periduodenal bands and gastric polyp are far from easy to diagnose and yet may readily lead to laparotomy under some erroneous diagnosis. Also at operation they both may be overlooked unless the surgeon's attention is directed specifically at the possibility of their presence.

My personal interest in the diagnosis of gastric polyp dates back to a tragic experience. While waiting at Camp Meade for orders to go to France, I was on duty at the base hospital on the medical service of Dr. Nellis Foster. There we investigated a young man with extreme anemia. After what we considered careful study, we concluded he had a primary or Addisonian anemia. After a year in the A. E. F., I returned to Philadelphia. Soon afterwards the same young man was admitted to the University Hospital, no longer severely anemic but now with evidence of pyloric obstruction. It proved that he had a gastric polyp which had become malignant.

Undoubtedly, he had for years had a benign polyp which had bled and given him the anemia he had had while at Camp Meade. At that time he would have been curable by operation. Later the polyp ceased to bleed but became carcinomatous and caused his death despite surgical removal.

This is one of eight cases of carcinomatous change in a gastric polyp seen in the University Hospital in the past ten years. A report of these cases by Drs. Miller, Eliason and Wright⁶ will shortly appear in the Archives of Internal Medicine.

Benign gastric polyp is by no means a rare condition and many go unrecognized until hemorrhage, carcinoma or obstruction complicate the picture. Many uncomplicated gastric polyps cause no symptoms. Occasionally the patient

complains of the feeling of having something alive in the stomach.

When bleeding occurs, it may be insidious and unsuspected, or free hematemesis may occur. The former type of bleeding is that which results in the severe anemia that led to 3 of our 8 cases having at some time previous been diagnosed as primary pernicious anemia. Helping in this error is the frequent occurrence of achlorhydria in cases of gastric polyp.

Miller, Eliason and Wright⁶, from whose forthcoming paper I am quoting freely, stress the importance of thinking of the possibility of a bleeding polyp in every case of unexplained anemia and also, of course, in every patient who has vomited blood.

Symptoms of pyloric obstruction result from the corking of the pylorus by the free swinging end of the polyp. Sometimes the polyp passes through into the duodenum, its stalk partly filling the pylorus. Vomiting and discomfort are apt to occur.

Carcinomatous degeneration seems to occur most often in males in the fifth decade and it is in such a patient with achlorhydria and perhaps anemia that polyp should be suspected.

Physical examination adds little; there may be epigastric tenderness, pallor, emaciation, and in two of eight cases an Ewald sentinel node above the left clavicle reveals the malignant change.

With such a patient one could scarcely fail to suspect cancer of the stomach and have recourse to X-ray for diagnostic confirmation. Here we must be on our guard for should the internist refer the patient for X-ray for gastric cancer and the roentgenologist not be alert, a negative or misleading report might be returned to us. Polyp of the stomach gives a most characteristic picture in the X-ray; it is that of a vacuole defect, an empty space in the opaque material due to the displacement of the opaque material by the polyp itself. This vacuole defect may at one time be in the stomach, at another in the duodenum. It is usually near the pylorus. It may be identical with the vacuole caused by a foreign body as, for example, one or more grapes.

Dr. E. P. Pendergrass⁷ of our roentgenological department published an interesting article on this subject a few months ago in the *Journal of the American Medical Association*, with many illustrations.

The difficulties of clinical and of roentgenologic diagnosis have already been mentioned, but these are not all. If laparotomy is performed under a mistaken diagnosis the presence of a polyp may readily be overlooked by the surgeon. The polyp is anchored only to the inner layers of the stom-

ach wall and its site and even its presence can often not be determined from the outside of the stomach. Miller, Eliason and Wright emphasize the need of opening the stomach for direct inspection or the employment of the gastroscope. Eliason has been able to move the free end of the polyp from one side of the pylorus to the other by external pressure and by this measure to make sure of its identity and site of attachment. But if the surgeon is looking for an ulcer or the usual type of mural carcinoma, there is little chance of his recovering a pedunculated polyp.

The diagnosis of this lesion, as of duodenal bands, is well worth making, for an early operation will cure malignancy that has not gone too far as well as those instances of severe obscure anemia due to bleeding from a polyp which is still benign. If the diagnosis is possible, it must be made preoperatively and the chief responsibility for this rests on the shoulders of the internist.

Discussion. I do not mean to express any doubt concerning the diagnostic ability of surgeons as a group. Many surgeons are most excellent diagnosticians, but I do believe that more laparotomies prove fruitless when the diagnosis is made by the surgeon alone than when it is arrived at by surgeon and internist in cooperation.

A surgeon obviously cannot help seeing a case from a surgical point of view and as an individual potentially in need of surgical treatment. The physician working alone is apt to rely too much on his knowledge of the patient, the family background and the previous medical history, and if he fails in diagnosis it is apt to be through a failure to go far enough in the study of his patient by laboratory, roentgenological and other methods.

At the other extreme is the diagnostic clinic where a large and perhaps excessive number of examinations are made but where a miserable failure to coordinate the various findings into a correct diagnosis sometimes happens. The patient is lost sight of among the tests.

Cooperation of internist and surgeon yields the best results but it opens the way to one danger. Any sharing of diagnostic responsibility tends to make it a little easier to divide the responsibility for the important decision as to operation. We must be careful not to allow ourselves to be carried away by the safety of modern anaesthesia and the excellence of modern surgery into the slightest lessening of our diagnostic effort. That the patient will suffer relatively little and will run even less danger is not the slightest excuse for substituting diagnostic laparotomy for preoperative diagnosis.

Only by thorough and skillful study can the preoperative diagnosis be made; only by correct

preoperative diagnosis can the surgeon be given the best chance to avoid the performance of a fruitless laparotomy. Only by cooperation can this be most constantly accomplished.

The basic responsibility for diagnosis belongs to the physicians and the internists. It is a responsibility which we should not shirk. The patient comes to us first and when we make our diagnosis we automatically become bearers of a share of the responsibility for the decision as to operation, for the incision used, for the pathology suspected, and in a measure for the results obtained, assuming proper surgical technique is displayed.

If it is true, as I believe, that the physician bears so great a share of the responsibility then it follows logically that his share of the reward and of the credit or discredit should be equally great.

Conclusion. As you may infer these remarks reveal a feeling of protest against certain tendencies which I see becoming increasingly strong. In discussing one of these I have tried to emphasize how worth while it is to try to make a correct preoperative abdominal diagnosis, illustrating my theme with remarks concerning two conditions, the importance of which has only been appreciated of late years and which undoubtedly are still being responsible for many fruitless laparotomies. We have seen the X-ray unfortunately almost replace physical examination of the lungs, let us not discard preoperative diagnosis in favor of diagnostic laparotomy.

The other purpose of these remarks was to insist on the large share of responsibility which rightly belongs to the physician or internist. He is the one best fitted to make the diagnosis and he should insist on doing so and on assuming all the responsibility which inevitably results. He must cooperate but must not surrender to clinic or to surgeon his prerogative as the one to make the primary diagnosis.

It may well be that in consultation with surgeon or specialist or as a result of additional evidence from X-ray or laboratory, the physician will see the incorrectness of his own diagnosis. He must then be as ready to admit himself wrong as he was to insist upon his diagnostic privilege. If his diagnosis is not agreed with by the surgeon who proceeds to operate on some other diagnosis, then indeed the physician is relieved of responsibility for any failure which may follow. His only responsibility then concerns his choice of consulting surgeon in the future.

Only by a willingness to assume our full responsibility and by a spirit of wholehearted cooperation can we continue to approach our real

goal, the underlying motivation of our every effort, the greatest possible good for our every patient. A fruitless laparotomy falls far short of this ambition.

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Symposium: Lesions of the Upper Abdomen*

I

THE DIAGNOSIS OF SOME OF THE MORE COMMON LESIONS OF THE UPPER ABDOMEN**

JOHN T. STRAWN, M.D., Des Moines

The subject of this symposium covers a large field. Many diseases come into consideration in the diagnosis of upper abdominal lesions. Because of the limited time my remarks will be confined to only a few of the more common diseases of the upper abdomen.

When a patient with upper abdominal pain confronts us for a diagnosis of his trouble our first thought is of organic disease affecting the organs lying immediately in this location. Second, we think of the possibility of a reflex pain dependent upon organic disease in other organs of the body, especially those of the abdominal cavity, pelvis, and lower chest, and third, we think of a pain or distress of nervous origin either due to organic disease or of a functional nature.

The organs to be considered and lying immediately within the upper abdominal cavity are the cardiac portion of the esophagus, the stomach and duodenum, the liver with its gall bladder and biliary ducts, the pancreas, the bowel, and the spleen.

The diagnosis of some of the diseases affecting these organs can be made fairly accurately in a direct manner. Others require a careful differentiation.

The diagnosis of disease of the cardiac portion of the esophagus can nearly always be made direct. The story of the pain with difficult deglutition and the character of the regurgitation at once arouses suspicion of an esophageal lesion. The routine fluoroscopic examination of this region confirms our suspicion or rules out the presence of pathology, although it does not always give

*Editor's Note—The publication of this symposium has been delayed since difficulty was experienced in securing a full transcript of the discussion.

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complete evidence of the character of the disease. However, the story of the onset, the course, the age of the subject, reaction to dilatation, and finally in some instances the esophagosopic appearance with biopsy enable an accurate direct diagnosis to be made.

The more direct relation the pain or distress bears to the ingestion of food the greater are the chances that the stomach or duodenum is at fault. The "hyperchlorhydria syndrome" of gnawing hunger pain in the upper abdomen regularly one to three hours after the intake of food, and relieved by food or alkalies as emphasized by Moynihan years ago usually means peptic ulcer. If the pain reappears from twelve to one o'clock at night awakening the patient, the diagnosis is almost certain, especially if the condition is subject to recurrences in attacks.

The failure to elicit such a clean cut story of ulcer does not prove its absence, for while the greater number of ulcers give the "hyperacid syndrome" many do not. Some present "the syndrome" atypically and in others the symptoms are modified by complications, and confused with the symptoms of associated disease. Rarely the ulcer may be without symptoms until the symptoms of serious complications arise. I recall the instance of one patient who had been absolutely without any symptoms until the severe pain of acute perforation occurred while he was at work one morning. The perforation occurred in the anterior wall of the pyloric portion of the stomach. I have seen several acute hemorrhages of peptic ulcer origin with just as acute onset, and many perforations and hemorrhages following a history of only a few days gastric distress.

The higher the ulcer is located in the stomach the less likely is it to give the characteristic food ease. Large ulcers are prone to give distress immediately or soon after the intake of food, as also are those whose inflammatory base has encroached materially upon the peritoneal surface. The complications of perforation, obstruction, perigastritis, perigastric abscess, perigastric adhesions and cancerous association are all likely to modify the hyperchlorhydria syndrome beyond recognition.

At the same time these irregularities come to confuse the symptoms of ulcer, reflex disturbances from disease in other organs occur and so closely mimic the "hyperchlorhydria syndrome" that without confirmation it becomes unreliable. This is especially true in the less typical cases. However, such stories confirmed by a compatible gastric analysis, and positive x-ray findings enable the direct diagnosis of peptic ulcer to be made 90 per cent of the cases.

There are two types of peptic ulcer in which the x-ray is of little help and often confusing in making a diagnosis. To the one type belong those ulcers and erosions which are of such small size as to render them unrecognizable or those which occupy such a location on the gastric wall as to obscure their visibility. Pyloric ulcers for instance are often difficult to visualize as also are ulcers on the anterior and posterior gastric wall. To the other type belong those ulcers in which complete healing is established but still cast a deformed shadow. The first class is comprised almost wholly of simple uncomplicated and usually early ulcers whose diagnosis is easily confirmed by the prompt relief afforded by a short therapeutic test.

The fundamental requirements of the therapeutic test being constant neutralization of the gastric secretions during the day with control aspiration and gastric lavage at night.

Recently we have been using six ordinary oyster crackers every half hour from 7:00 a. m. to 9:00 p. m. with three light meals per day, the principal base of which is eggs (preferably raw), cereals, toast, and milk and cream. We have been surprised at the ease with which constant neutralization is maintained in most cases.

It is very difficult to prove that a deformity of the duodenum represents a healed ulcer. The vital evidence is, first, a symptomatology inconsistent with that of an ulcer or its complications; second, failure of therapeutic relief; third, establishing the diagnosis of another lesion which is compatible with the symptoms; and fourth, complete relief by the treatment of the established diagnosis.

In treating an ulcer medically without obtaining the desired results, one should always review his diagnosis, keeping in mind the possibility of associated disease as well as the common ulcer complications.

In cancer of the stomach it has been my experience that patients localize the distress quite definitely in the stomach area. The distress is nearly always modified directly by the intake of food. As a rule modified more by the quantity than by the quality of food taken. Three striking types of story are obtained. First, those having had no stomach symptoms at all previous to the onset of the present illness which dates over a few weeks to a few months and in my own experience comprises the greater number of cancer cases seen. Second, those with intermittent dyspeptic symptoms simulating peptic ulcer over a number of years. Third, those giving an early ulcer history and a lapse of several years preceding the onset of the present symptoms. The early symptoms during the present illness in any of

these groups may be empty stomach distress and food ease, more or less typical of peptic ulcer. This gradually fades into more or less continuous distress, especially marked with the intake of food. Others may complain of immediate food discomfort from the beginning of the initial symptoms.

Like peptic ulcer the diagnosis of cancer of the stomach can be made direct by the evidence obtained from the x-ray in about ninety per cent of cases. However, there are three conditions of the stomach requiring careful differentiation. One is the differentiation of cancerous ulcer from simple peptic ulcer. Another is the differentiation of cancer from syphilis of the stomach, and the third is the differentiation of cancer from other tumors of a benign nature affecting the stomach.

The essential features favoring the malignant ulcer in distinction from a benign ulcer are: (1) the size of the ulcer, (ulcers larger than three cm. in diameter have often been found to be malignant); (2) the continuation of oozing when the patient is on a rational medical plan of treatment; (3) gradual reduction in the gastric acidity during the course of the disease; (4) failure to reduce the size of the ulcer under medical treatment. Such findings are, in my judgment sufficient evidence to warrant an exploratory operation with the view of removing the ulcerating area.

Syphilis may stimulate the x-ray findings characteristic of cancer of the stomach and vice versa. The course of the disease as well as the age of the patient may be inconsistent with the diagnosis of cancer. A gastric deformity entirely out of proportion to the emaciation and distress of the patient is suggestive of syphilitic lesion. The Wassermann or Kahn blood reaction may put us on our guard as well as may the presence of other well known signs of the stigma of syphilis. Finally the rapid improvement afforded by an active syphilitic treatment may leave no doubt as to the nature of the lesion.

In the diagnosis of pancreatic disease we are left quite largely to our ingenuity in interpreting clinical signs and making deductions from differential points. For instance the diagnosis of cancer of the pancreas is usually very difficult except in the late course of the disease. It will be remembered that in the first place the course of the disease is progressive. There is the constant loss of weight. There is an epigastric pain or distress in the early course which is referred to the back with considerable severity as the disease progresses. An epigastric indefinite fullness later becomes a palpable tumor. If the head of the pancreas is involved jaundice of an insidious onset is often a fairly early symptom. In others it represents late metastasis. I recall two cases.

one, of unexplained biliary obstruction with deep seated jaundice, the autopsy of which showed a small cancer not larger than a pea lying within the head of the pancreas, imbedded in the ampulla of Vater. The other one had a slight jaundice. His clinical symptoms a short time previous had been regarded as functional by a very competent clinic. Upon exploratory laparotomy he proved to have a large cancer of the body of the pancreas with liver metastasis.

Cancer of the pancreas is differentiated from stomach disease principally by evidence obtained in the direct diagnosis of stomach lesions. Its differentiation from diseases of the gall bladder is made easier by the Graham-Cole method. Yet I have seen many cases of obstructive jaundice that the differentiation seemed little more than a guess previous to an exploratory laparotomy.

The symptoms of gall stones may be divided into two classes: To the first belong those giving the well known syndrome of gall stone colic. To the second class belong those giving a reflex disturbance of the stomach and digestive tract sometimes spoken of as "Moynihan's dyspeptic symptoms of gall stones."

The first group, "gall stone colic," brings into consideration for differentiation the diagnostic features of a large group of acute diseases affecting the upper abdomen: the commoner of which are acute perforation of gastric and duodenal ulcer, renal calculus, Dietl's crisis, acute pyelitis, acute pancreatitis and intestinal obstruction.

In acute perforation of peptic ulcer the onset is more abrupt and associated with it there is the characteristic board-like rigidity of the entire upper abdomen which is constantly maintained. The character of the breathing in acute perforation is important. The patient protects the abdomen to the extent that the breathing is almost wholly costal in type. I regard this sign as a very important one, especially in a doubtful case. An enema can be given and the results examined for occult blood. The degree of reaction for blood in some cases may establish a diagnosis otherwise doubtful. The previous story of peptic ulcer is a valuable aid but as pointed out above its absence must not be given too much significance.

The pain of renal calculi is usually different from gall stones in its location and radiation. The character of the urine establishes the nature of the lesion in some. A direct X-ray plate may show the stone in its characteristic location, in other cases the distinction is made only by the aid of cystoscopy and pyelogram which must be correctly interpreted. The same holds true for other cases in which diseases of the kidney must be dif-

ferentiated. Most mistakes pertaining to the kidney are made where complete genito-urinary examinations are omitted. These patients are sick and demand relief and we do not always have time for detailed examination, but a urine examination and an X-ray plate of the genito-urinary tract is permissible in practically all cases of any doubt.

It has been our custom to ask for a cystoscopic and pyelogram in practically all doubtful cases with evidence of serious upper abdominal complaint in which the urine of the male or catheterized urine of the female shows more than a few white blood cells.

Acute pancreatitis is diagnosed by the severity of the pain, or profuse prostration, rapid thready pulse and early collapse in association with epigastric tumor of rapid onset. Patients suffering either from acute pancreatitis or perforation remain perfectly quiet while those of gall stone colic are constantly moving in an effort to obtain ease.

When intestinal obstruction appears as an upper abdominal lesion it often affects the small bowel and may present the signs of either an acute lesion or a chronic lesion with exacerbation. In either, the cramp-like colic with remission and return are characteristic and should indicate the necessity of careful and repeated abdominal inspection for visible peristalsis of an organic type. In small bowel obstruction the vomiting is early and of a fishy odor before it becomes characteristically fecal. In small bowel obstruction these signs are usually earlier and often more significant than those obtained by the X-ray.

Acute appendicitis, acute right-sided diaphragmatic pleurisy, right upper abdominal pain at onset of pneumonia, herpes zoster, tabetic crisis, lead colic, incarcerated hernia, mucus colitis, angina pectoris, coronary thrombosis, and others, must occasionally be differentiated in acute upper abdominal pain.

In the chronic lesions affecting the upper abdomen the number of diseases for differentiation is still larger.

In my closing remarks I would like to emphasize the following points:

1. The diagnosis of upper abdominal lesions covers a large field.

2. Local organic disease of the upper abdomen is so mimicked by functional disturbances of a toxic, congestive, reflex, nervous, or constitutional nature, as well as by each other, that the diagnostician must be on a constant watch for anything and everything.

3. In these cases an exhaustive case history is imperative.

4. An intelligent use must be made of the clinical laboratory and other diagnostic equipment.

5. All diagnostic leads must be followed to a safe conclusion if mistakes are to be avoided in the diagnosis of upper abdominal lesions.

II

THE CLINICAL SIGNIFICANCE OF X-RAY SIGNS OF COMMON LESIONS OF THE UPPER ABDOMEN*

ARTHUR W. ERSKINE, M.D., Cedar Rapids

The diagnostic value of the different X-ray signs varies just as much as any other clinical evidence. Not only do various signs have different degrees of significance, but a sign which by itself is worthless may be diagnostic when considered in the light of other X-ray and clinical data. The science of diagnosis owes much to that great roentgenologist, Russell D. Carman. He had an orderly mind, a scientific habit of thought and infinite patience. He made a tremendous number of examinations, and what is more important, he followed his patients to the operating table where he could observe the accuracy of his deductions. With unlimited clinical material, and with facilities for recording and tabulating data he was able to weigh the value of the many roentgenologic signs and to differentiate between the important and the unimportant. Carman's genius played an important part in demonstrating the fact that sometimes a purely X-ray diagnosis can be made on so-called "direct" signs, which are so positive that corroborating evidence is unnecessary. On the other hand, he and his colleagues showed that many, perhaps the majority of diagnoses of obscure conditions are a combination of X-ray and clinical diagnosis, in which the value of so-called "secondary" X-ray signs is estimated in the light of clinical evidence. It is to the relative significance of secondary X-ray signs of a few of the more common upper abdominal diseases that I wish briefly to direct your attention.

The direct X-ray sign of duodenal ulcer, by far the most common lesion encountered in X-ray examination of the gastro-intestinal tract, is a constant deformity of the duodenal cap. When this sign is observed the presence of an ulcer, active or healed, may be safely assumed in spite of the fact that the history may be negative, and laboratory and clinical evidence entirely wanting.

Foremost among the secondary signs of duodenal ulcer are hypertonus, hyperperistalsis, and hypermotility. Of these the most important is hyperperistalsis, which is observed in 60 per cent

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of all cases. Strangely, a six hour retention is not as significant as in gastric ulcer. It occurs in about 25 per cent of the cases of duodenal ulcer. A tender point over the duodenum is practically worthless, and evidence of gastrospasm, such as an incisura, is not of much greater value, except in combination with other signs.

In the absence of a direct sign of duodenal ulcer, a probably correct diagnosis can be made on hyperperistalsis and a six hour retention, and if in addition to these signs the patient gives a positive history the diagnosis is absolute.

The direct signs of gastric ulcer on which a positive diagnosis can be made regardless of other clinical findings are three, the niche, the accessory pocket, and the organic hour glass stomach. Among the important secondary signs, partly X-ray and partly clinical, are spastic manifestations, such as an incisura, spasmodic hour glass and diffuse gastrospasm. A six-hour retention is observed in 55 per cent of the cases of gastric ulcer. A tender point is of some value if over an incisura. A six hour retention plus spasm justifies only a probable diagnosis of ulcer, but if to these two findings be added a history of a food eased pain a positive diagnosis can be safely made. In other words, in gastric ulcer, just as in ulcer of the duodenum, the value of secondary X-ray signs depends largely upon the presence or absence of purely clinical data.

An accurate diagnosis of cancer of the stomach on such X-ray signs as a large ragged filling defect, a palpable mass corresponding to the deformity, and a six hour retention is easy to make, but it is not of much value to the patient. If anything more than palliation is to be expected from the surgical treatment of gastric cancer, resection must be attempted, when the X-ray findings are "those of an ulceration of the stomach, which may be malignant." A lesion more than one centimeter in diameter, and that peculiar resistant stiffness of the stomach wall so familiar to all roentgenologists, have some significance, but are not so important as indications for operation as an insidious onset, middle age and low or absent hydrochloric acid. The time to diagnose cancer is when the tumor is in the pathological laboratory, and we must be willing to advise radical surgical treatment of suspicious lesions long before a definite clinical and X-ray diagnosis can be made. On the other hand, it is the duty of the roentgenologist to protect the patient against needless resection of an obviously simple ulcer where the chance of operative death is greater than that of malignant degeneration. In advanced cancer the X-ray findings will often demonstrate the futility of opera-

tion, and when obstruction is present, will give some information on the feasibility of palliative surgery.

The method of examination developed by Graham and his co-workers has proved to be a thoroughly reliable test of gall bladder *function*. When the dye fails entirely to enter the gall bladder, it may safely be assumed that the usefulness of the organ is ended and that its surgical removal is indicated. However, when stones can be visualized, either as positive or negative shadows, and yet the gall bladder fills with dye and is emptied by the normal stimulus of fatty food it is reasonable to expect the gall bladder to continue to function if it is surgically drained and the stones removed. There is also a group of patients with typical gall stone colic whose gall bladders not only fill and empty normally after ingestion or injection of the dye, but fail to show any shadows of calculi. The clinical symptoms of these patients demand surgical relief, but their normal reaction to the test justifies a simple drainage and is an argument against complete removal of an organ which will probably continue to function satisfactorily. The Graham-Cole procedure is not primarily a method for the diagnosis of gall stones, and it does not always determine the degree of cholecystitis present. It should, however, be considered at least as accurate an index of gall bladder function as intra-abdominal palpation and inspection of the mucosa.

The foregoing illustrations show, I believe, how impossible it is to divorce X-ray diagnosis from clinical diagnosis, and how apt those of us who use X-rays in diagnosis are to become so intrigued by the accuracy of the method that we forget that we should be clinicians first and roentgenologists second. We are inclined to ignore the fact that there are other no less important factors to be considered in making a diagnosis. I think this tendency is wrong and I believe that if roentgenologists, or any other specialists, limit their observations and deductions strictly to the minute technical details of their own particular branch, the science of diagnosis is not best served.

It is true, of course, that the responsibility for the final diagnosis rests upon the attending physician. However, it should be the duty of the roentgenologist to evaluate the signs he has observed upon the screen and film. If he is expected to make intelligent and logical deductions in obscure and difficult cases, he should be given, at some time during the consultation, the data obtained from the history, the laboratory findings and the physical examination.

III SURGICAL PROCEDURES IN SOME OF THE MORE COMMON LESIONS OF THE UPPER ABDOMEN*

CLARENCE M. WRAY, M.D., Iowa Falls

It is a self-evident fact that time will permit of only a very brief presentation of the lesions of this region. My experience with most of these lesions is so limited compared with that of so many others that very little of personal element will enter into the paper. Rather, I shall endeavor to give my impressions of the methods used as they come to me from reading, correspondence, visitations at Hospital Centers, and personal interviews with men of vastly wider experience.

This paper was prepared with three objectives in mind: First, with the sincere hope that much of real value might be brought out in the discussion; second, that possibly a few time-worn facts might be repeated and carried home by some of us; third, the selfish motive of personal gain, as I assure you now whether any of my listeners profit or not by what I feel is a very incomplete presentation. I have been well repaid in knowledge and inspiration obtained by the study and review of the literature made in the effort to collect the material.

Only peptic ulcer, gastric and duodenal, carcinoma of the stomach and gall bladder disease will be considered. No details of technique will be given.

There is a tendency by some in this country and even more so on the continent of Europe to speak of peptic ulcer as gastro duodenal ulcer. I feel this is a mistake, and even though the etiology of the condition is still debatable, if for no other reason than mere value of statistics they should be considered separately. Sir Berkeley Moynihan¹ stresses this point, stating that in his opinion it will be a real aid to progress in our knowledge of the etiology, symptoms, and treatment to keep them separate in our minds.

DUODENAL ULCER

Duodenal ulcer is by no means rare. Four-tenths per cent of persons dying of all causes show evidence of active or healed duodenal ulcers. It occurs four-one in males over females, and ten-one over gastric ulcer.

The so-called pyloric ulcer is rare in the sense that the lesion extends to either side of the pyloric ring and involves both duodenum and stomach. However, both lesions may occur in the same patient at the same time. Sir Berkeley Moynihan² reported twenty-three such cases in review of seven hundred and eighteen cases.

Nearly every one present will agree with the statement that a patient suffering from duodenal ulcer should be given a thorough course of medical treatment. I am sure that if we as doctors were the patients we would favor such a procedure. Moynihan says,¹ "Two thorough courses of medical treatment." There is an important point here which I would wish to stress, and that is that the medical treatment should be thorough, wise, and continued over a long enough period of time to be effective. The half-hearted manner in which it is so often given brings it into disrepute.

Granted two honest medical treatments have been given and symptoms persist, when shall surgery be called to our aid?

First, for perforation. In case of acute perforation, immediate operation is indicated. Lives can be saved in Iowa each year by early recognition of and operation for perforating ulcers. This point is worth carrying home because every hour of delay lessens very, very rapidly the chance of recovery. There are some cases of so-called chronic perforating ulcers in which operation is not demanded immediately, and in a few acute cases if not seen early delay is sometimes a wise procedure.

Second, operate for hemorrhage, but keep in mind that the patient rarely dies of hemorrhage per se; also keep in mind that it is rarely if ever wise to operate at time of hemorrhage with thought of controlling the bleeding. The point is that given a patient in whom there has occurred one or more massive bleedings or one with repeated small hemorrhages, that patient is a surgical patient.

Third, operate for deformities or obstruction. Even if obstruction seems to be relieved by rest and medical treatment, it has marked tendency to return.

Fourth, operate for economic reasons. I feel this question of economics in connection with the ulcer problem is of great importance. It is responsible for much of the half-hearted medical treatment. So many, many of these patients cannot afford the time or the money to partake of the proper medical treatment; a compromise is effected and failure is certain. I consider it far better to advise surgical treatment in such cases and feel that it offers such a patient the best chance of early return to productive activity.

What type of operative procedure shall be used?

Sir Berkeley Moynihan¹ says that any method which does not make direct attack upon ulcer is at fault. He is quite in favor of gastro enterostomy after dealing with the ulcer. E. Starr Judd and Nagel³ say that if it was not for the formation of gastro-jejunal ulcer the operation of gastro enter-

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ostomy would be almost a perfect procedure in case of duodenal ulcer.

In section of Surgery A. M. A., 1927⁴ there are articles by such well-known men as Dr. Richard Lewishon, Dr. J. Shelton Horsley, Dr. Donald Balfour, with discussions by such able men as Dr. C. H. Mayo, Dr. George Crile, Dr. Frank Lahey and Dr. John Gilbride. Time will not permit lengthy quotations, but the type of operation suggested ranges from simplest gastro enterostomy to radical partial gastrectomy. Truly the task of finding a happy medium or of reconciling such widely diverging opinions is not an easy one.

A few conditions must be kept in mind: The location of the ulcer; whether single or multiple; whether the duodenum is freely movable, or whether there is a large inflammatory mass, with adhesions, and induration of the walls of the stomach or bowel or both. If reasonably easy to mobilize the duodenum and the ulcer is single and easily accessible, then surely some type of excision with pyloroplastic work would be satisfactory. If the lesion is multiple, surely the excision of one and leaving others behind would not be good surgery.

Those, in the group mentioned, favoring partial gastrectomy say that because of the formation of marginal ulcer following gastro enterostomy this operation should be discarded. Also they believe that the removal of a large part of the acid-bearing portion of the stomach is a step in the right direction in dealing with the ulcer problem. Dr. Lewishon stated that marginal ulcer occurred in 34 per cent of the cases in Dr. Berg's clinic at Mt. Sinai hospital. Others give the occurrence as low as four or five per cent. However, it is well known that marginal ulcer does occur after partial gastrectomy; and perhaps when this operation has been popular as long as gastro enterostomy and more time has elapsed and the "returns begin to come in" after a period of years, that much of the enthusiasm for this type will become luke warm.

In favor of the more conservative operation of gastro enterostomy it can be said that in case of failure to relieve, the operation can be undone and we can start again with at least an intact stomach and duodenum.

I believe the main point to be kept in mind is that no one procedure is ideal for all conditions; that some decided effort should be made to select the type of operation that seems safe and which will offer a reasonable hope of relief of symptoms.

It is equally difficult to attempt to cite statistics upon results obtained. One can perhaps say with a fair degree of accuracy that the operative mortality should not exceed 1-1½ per cent in absence of perforation; relief of symptoms in 80 to 90

per cent of cases; recurrence, including marginal ulcer, in 4-20 per cent.

To summarize in duodenal ulcer cases:

1. Honest, thorough medical treatments. At least two honest attempts with medical treatment.
2. Gastro enterostomy with or without some attack upon the ulcer.
3. Excision of the ulcer or ulcers with some type of pyloroplastic operation.
4. Partial gastrectomy, perhaps in some extreme cases or when more conservative type has failed.

GASTRIC ULCER

We do not find such wide differences of opinion as to treatment in this condition. E. Starr Judd⁵ says: "I believe that all ulcers of stomach should be treated surgically, at least until some means is developed whereby the benign lesion can be distinguished from the malignant." With Dr. J. M. T. Finney it is almost an axiom that, "Any gastric ulcer is better out than in."

Dr. Frank Lahey⁶ is more conservative and advises a test by rest and medical treatment with careful checking with X-ray to determine whether healing is taking place. He believes less than 10 per cent of gastric ulcers are malignant and does not believe mere presence of ulcer warrants its removal because of possibility of malignancy.

On the other hand, A. J. Walton⁷ believes he has decreased the number of carcinoma cases coming to him by radical treatment of gastric ulcer by wide resection. Out of two hundred and twenty-nine cases of carcinoma stomach operations he established in twenty-five the fact that the carcinoma had developed upon ulcer.

Indications for operation are the same as in case of duodenal ulcer with addition of possibility of malignancy either primary or secondary; and keep in mind that it is better to treat a gastric ulcer surgically than to treat a gastric carcinoma medically.

Type of operation:

In a single small ulcer cautery punch operation of Balfour, or wedge resection with gastro enterostomy offer much. When lesion is large, multiple, partial gastric resection is probably the method of choice. This may mean Billroth No. 1, No. 2, or the so-called Polya with post-colic or anti-colic union. So-called sleeve resection is not so popular as there seems to be more dysfunction following this than in the other types.

CANCER OF STOMACH

What shall we say? Here we have a lesion which is not rare, is apparently on the increase, and untreated by removal is 100 per cent fatal.

It would appear then that the crux of the entire subject is early diagnosis and early removal. I would say here that given a patient over forty-five years of age with stomach complaint of recent onset, good past personal history, especially if history of carcinoma in family, such a patient should be considered as a possible carcinoma patient and every means used to eliminate such from the picture; and if a gastric ulcer is found in course of examination it should be removed.

When shall we operate in carcinoma of stomach?

I believe a large percentage of carcinoma patients, even if seen late, unless metastases can be shown, should be explored. There are several reasons for such a statement. There are several degrees of malignancy in these cases, same as in breast and elsewhere. For example, there is the colloid carcinoma which seems to be of low-grade malignancy. The mere size of the growth cannot be a guide as to its operability; and again in many cases something can often be done in a palliative way. Cases are on record as living one to three or even more years when nodules were present in liver at time of removal. Just a word as to results:

J. R. Walton⁷—one hundred seventy-seven cases; sixty-two operated, partial gastrectomy; fifty-five died of recurrence; one alive fifteen years, one twelve years, one ten years, one seven years. In a personal communication, Dr. T. J. M. Finney said he knew of two cases alive fifteen years.

While this seems a very bad showing and it would seem a hopeless task, yet some are cured (if that term is permissible), many have years of comfort and usefulness added to their lives. Many of these cases can be given one to five or more years with a pretty fair degree of comfort.

Type of operation:

This means a wide gastric resection, usually of the Polyn type; occasionally the original Billroth No. 1 or No. 2. In a personal interview, Dr. Donald Barfour emphasized the value of a two-stage operation. At first operation the stomach is divided well above the lesion, the proximal end of distal portion closed, the usual anastomosis made between upper segment and bowel. Then in a short time, one to three weeks, the abdomen is reopened and the operation completed in the usual manner. This has a decided value in that the patient can be built up between the two steps, and at the time of the second step, as there is already established the new route for nourishment, no disturbance of nutrition follows.

GALL-BLADDER DISEASE

It might be well to make a few statements concerning the physiology of the gall bladder.⁸

1. The gall bladder is a functioning and not a vestigial organ.

2. During the intermission of digestion it concentrates bile, which concentrate is again diluted and delivered into intestine during the next period of digestion.

3. The nerve control of the gall bladder and biliary system is the same as in all reservoirs of the body. A relaxation of the sphincter is followed by contracture of the musculature of the reservoir, and the reverse holds true; a contraction of the sphincter at ampulla of Vater is followed by relaxation and dilation of the gall bladder.

4. Following removal of gall bladder, nature again prepares a reservoir for accumulation of bile by dilation of the common duct.

Considerable pathological data has been gradually accumulated and can be stated with a fair degree of certainty.⁸

1. The gall bladder is rarely ever a primary focus of infection.

2. The gall bladder once infected may be the source of continued reinfection of the liver, and a chronic Hepatitis be established.

3. A relationship between an infected gall bladder and glycosuria is thoroughly established. This infection may reach the pancreas and bring about a chronic fibrosis with destruction of Islands of Langerhans, resulting in a true diabetes.

4. The infection may be conveyed from gall bladder by blood stream and result in various arthritides, myocarditis, etc. Dr. Eustes, co-worker with Dr. Allen above quoted, in review of one hundred cases of myocardial insufficiency showed the gall bladder responsible in 38 per cent.

5. Imperfect liver metabolism brought about by biliary infection may result in absorption of more or less toxic substances, resulting in a great variety of disturbances.

Dr. Frank Lahey⁹ says there are no such things as harmless gall stones. Dr. John B. Deaver¹⁰ says the gall bladder once infected is always infected.

There is no doubt but that it is the element of infection that most determines our interest in the gall bladder from a surgical viewpoint, and not the mere removal of mechanical conditions brought about by presence of stones. What, then, shall be the treatment when confronted with a patient in whom the diagnosis of cholecystitis with or without stone is made? Personally, I am sure by far the great majority of such cases are surgical. I am perfectly willing to grant such a patient the privilege of medical treatment; I am also well

aware that many cases of undoubted infection of the gall bladder, even in the presence of stones, apparently go on to recovery—at least they are symptom free for long periods of time.

Granting the foregoing to be true, I still say the treatment is surgical. This for reasons stated: viz., focus of infection, damage to heart muscle, pancreas, etc. In addition it must be kept in mind that operation for late complications, such as stones in common duct, adhesions, perforations, and in patients with damaged heart muscle is done at a far greater risk than if case is treated early.

There are exceptional cases when we should not operate:

1. The poor surgical risk cases, when every means should be used to bring them back; and especially important is the case with damaged heart muscle. Many of these cases with a proper period of rest and medical treatment improve wonderfully.

2. The jaundiced patient. While often times it becomes necessary to operate in the presence of jaundice, there is an added risk, and careful study should be done before subjecting such a patient to surgery. Blood clotting time, blood bile content and liver function tests can and should be carried out in these cases.

3. In some very acutely ill patients with severe inflammatory reactions, these as a rule are far better treated expectantly for a time, if one is always alert to recognize the possibility of an acute perforation, when delay is usually disastrous.

The case of cholecystectomy vs. cholecystostomy has been pretty definitely settled, the jury having brought in a verdict in favor of cholecystectomy. However, here again there are some cases in which the more conservative treatment by cholecystostomy should be done. In the main they are the same type of cases in which expectant treatment is advised. Poor risk patients, in presence of severe inflammation, perforation cases unless seen early, deeply jaundiced patients, and finally when there is question as to permanent occlusion of common duct.

The type of procedure is pretty well standardized. Removal of gall bladder from below upward.

I would emphasize the importance of good exposure, good light, and absolute identification of structures. In this way only the pitfalls such as overlooking stones, injury to hepatic or common duct, or blood vessels can be avoided, such accidents being the cause of failure in by far the most of the gall bladder cases.

Also it should be mentioned that a complete inspection of the region should be made and other conditions dealt with according to indications.

Especially should the appendix be removed in most of these cases, as I am convinced a diseased appendix is found far too often in connection with gall bladder disease to be a mere coincidence, having seen empyema of the gall bladder and suppurative appendicitis in more than one patient simultaneously.

Finally, I would say that results in surgery of the gall bladder on the whole are among the most gratifying in surgery, and would urge early diagnosis and early surgical treatment.

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Discussion

Dr. Milton B. Galloway, Webster City—There are just one or two points I would like to mention in connection with Dr. Strawn's paper. One is the importance of gastric analysis in searching for gastric ulcer. We should make several gastric analyses to determine acidity and for the purpose of searching for blood. Also the importance of making stool analysis of several specimens should be stressed, excluding, of course, other bleeding points in the gastrointestinal tract as well as those in the bowel. We should always bear in mind that there may be more than one condition present in the upper abdomen, and if so its nature should be ascertained. Dr. Strawn has brought out all those points, but I stress them because they are more frequently overlooked than some others. One point I think he did not make sufficiently clear, and that is in connection with determining the source of pain. The pain that comes immediately after eating is more often in the bowel than in the stomach.

Dr. Judd C. Shellito, Independence—Dr. Erskine's logical paper should certainly cause one to sit up and think. We must remember that after all an X-ray is merely a record of density. It is not a picture, it is not a silhouette—it is a record of density. Observance of the heavy densities of barium meal under the fluoroscope enables the roentgenologist to determine function; observance of the densities of a film enables the roentgenologist to judge of structure at the particular instant that film was made. The observance of function and structure by means of the X-ray furnishes to the clinician an additional method of approach. The roentgenological findings may furnish a diagnosis; more often they furnish merely additional information. For illustration, a small gastric ulcer is reported by the roentgenologist; whether or not this is a malignant condition must be determined by other means, and sometimes even the pathologist with the specimen under his microscope cannot determine the question. Finally, the measure

of the ability of a roentgenologist lies in his capacity to evaluate his findings in the light of other clinical findings.

Dr. William A. Rohlf, Waverly—When Dr. Wray was discussing two courses of medical treatment for the cure of ulcers of the duodenum or stomach, I was led to wonder if we had forgotten that some very good men believe that these ulcers are the result of infection some other place in the body, and whether or not, while the patient is receiving his first medical treatment, whatever it may be, we remember to clean up his tonsils, sinuses, middle ears, hemorrhoids or suppurating ingrowing toe nails.

Just a word or two about the gall bladder. After having had a chronic cholecystitis with gall stones for over twenty-five years I came to the conclusion that we have been altogether too conservative in regard to gall-bladder surgery. As you know, a fellow who has gone through this thing always thinks everybody else is interested in his gall bladder. Two Waterloo friends of mine told me twenty-five years ago that I had a gall-bladder infection. I then went to Chicago and an eminent physician there humiliated my associate and also my consultants at Waterloo by telling me I needed a placebo—that I was hysterical. Finally I did get a terrific attack of gall-stone colic and made my own diagnosis and sent for the surgeon, who did the wise thing that is being advised should be done in acute gall-bladder cases—to be conservative and simply drain and get ready for a radical operation later. They told me I ought to have a radical operation in about a month. I believed them all right, but put it off for ten years until another bunch of gall stones had developed, and I want to tell you that my gall bladder is gone now, and this world has become a beautiful, glorious place in which to live. I am not ready for the final benediction, but I have been a number of times when I had gall-stone colic.

At this time, with the means we have of making ninety per cent at least of diagnoses of infection of the gall bladder, I believe we should consider the infected gall bladder as much of a rebel as we have for many years considered the appendix to be, and that every infected gall bladder, other things being satisfactory, is a condition for the surgeon. And we are coming to take out these gall bladders, just as we are taking out the appendix, before breakfast most any morning.

There is another thought in connection with surgery in the upper abdomen, and that is that this is one of the places where we should not wear spurs, where we should be gentle and easy with the great nerve centers in this locality. Here is one of the places where we should, more than any other place perhaps, treat the tissues with respect, with kindness, and with courtesy.

Dr. Hugh Cabot, Ann Arbor—I have been very much interested in this symposium and desire to strike upon a few points on which I have opinions and would be glad to express them.

I note, as many of you have noted, that in the

last ten years the mortality of operative surgery for the common conditions has increased more than fifty per cent in most of the fields. I have also learned that it has increased rather more in the British Isles than in this country, so that we are not alone in our tendency to go ahead on surgical lines lacking something of virtue. Now, it is not accidental that the mortality has risen. It is not due to any change in the people on whom we are operating. It is due to a change in the people who are doing the operating. It means that a large number of people are insufficiently trained to do the work or are operating with insufficient diagnosis. I do not suggest that that is a new disease. As a matter of fact, twenty-five years and more ago there was more unjustifiable surgery in the female pelvis than there is anywhere in the world today. That particular line of wickedness has been considerably washed out, but the advent into the field of surgery of many conditions that were without the field of surgery twenty years ago has had and is having its consequences. I point to this, which is to me striking: In my service at the University Hospital I see every year on an average of somewhat over 1,000 cases which have had two or more unsuccessful surgical operations. That is 10,000 cases in the last ten years, and that, mind you, is just one service. My colleagues have noted that also. The condition incident to that unsuccessful surgery is, I believe, the steady increase of the number of people in this country, and I think more true in this country than anywhere else, who are ill-adjusted to their environment. They are exactly the same type of people we saw over-seas by the thousands whose cases were at first called shell-shock, later war neurosis. How any one stood the gaff over there was a mystery to me. But very much more important for our purposes than war neuroses are peace neuroses, and they are steadily increasing in relation to the population. The psychologists tell us it is due to the increasing pace at which we live. Very likely, but we are going to keep on living that increasing pace, and there is therefore no use pointing to that. We have an increasing number of patients with symptoms that might be due to lesions of the upper abdomen, or people who are seeking pain as a refuge for their misfortunes. When they haven't a pain they are merely people and cannot face the music. More and more, I think, we should regard with suspicion women between 25 and 45 years of age, for they will present these conditions five times as often at least as will their contemporary men. You will run into the same drift of mind, the same kind of people, among the men, but only about one-fifth as often, and the problem here, as I see it, has been mentioned this afternoon—that a group of symptoms which might be produced by an organic lesion in the upper abdomen must be competently shown to be so produced in fact. These people know the symptoms, they know most of the signs, and there is a considerable group of them in whom the signs we could demonstrate are entirely apart from their opinion of them. I suggest that we become increasingly suspicious of that group.

I think it is safer to postpone an operation than to do an unnecessary operation. There has been and probably still is a widespread belief that an operation which does not mutilate the patient is relatively harmless. I deny this; it is of great damage, particularly so in those people who are unadjusted to their environment. I believe abdominal operation is a great insult. To have it made is justifiable only when it reaches an organic lesion which would result in something that needs to be cured.

Again, the greatest surgeon of his day has done us great damage by saying an abdominal operation is a study in clinical pathology. It was wisely said and wisely meant, but it has resulted in an enormous amount of insult to people's insides under the study and guise of clinical pathology. There is made a nice long incision so we can see plainly, but nine times out of ten we do not know what we are looking at when we see it. I can show you a perfectly typical ulcer of the stomach while you stand there and look at it and can demonstrate it when it is not there. I can show it to the student, but do not dare to talk. It does not require hypnotism. John Deaver was the first person who did it. The time to study clinical pathology is before you make a hole in the stomach and not afterwards. You want to know what you are going after or stay out and let some other fool do it.

We have had here two remarkable discussions of the relation of the X-ray to these conditions. The question is not what is there, but what the observer saw; what did he *see*? Does he *know* what he saw? It is within the knowledge of all of us that ulcers have been seen that were not in the patient at all, and, conversely, that ulcers have not been seen when they were as large as a hen's egg. It is very important to know who is your roentgenologist. Not knowing him, the opinion he gives is not safe for you. Within the past week I saw a patient with a very elaborate X-ray study of the gastro-intestinal tract, sent in with an elaborate report from a roentgenologist, and I inquired of my roentgenologist if he knew him, then asked, Will you accept his opinion? And he replied, no. I do not myself believe that we can utilize the X-ray unless we come in contact with the expert himself. He has to show me, just as I think I have to show him, which is the outstanding incident. This is where the laboratory and the clinic cannot be separated. I do not care very much whether the laboratory shows tubercle bacilli or not, I know when they are there nine times out of ten no matter what the reports say. Here is a situation in which I am utterly at the mercy of my expert, and I suggested that he and I should get our feet under the same table and fight it out.

I was very glad to hear what was said in regard to the economic aspect of operations for gastric and duodenal ulcer because that is an important field. It is necessary to inaugurate a careful medical technic. This means taking a special diet, and the patient says, who is going to support my family in the mean time? A real course of medical treat-

ment means a year out of business, I think, in many instances before one can say that the regime has failed, or, it has succeeded. Now, a year taken right out of a man's life plus certain expenses whether he is working or not, is a pretty serious sacrifice. I suggest that there is a group of these patients in whom there is clear evidence of an organic lesion in which the roentgenologist can demonstrate that there is a chronic indurated ulcer. I think that patient is entitled to the choice, therefore the case should be put before him so that he may realize before he starts what he is in for if he really needs medical treatment. I think many ulcers are cured by medical treatment, but a small proportion of cases are never under treatment at all, they cannot be, it is beyond the patient's means. These individuals change their diet a little, but do not alter their work. Medical treatment is a serious business and must be judged as such, and requires sacrifice, time and money which is entirely beyond that required by the average surgical case. There is an average case in which I think the patient should have opportunity to judge. But very often he cannot judge, he will end by taking your word for it; he does not know what it means and he must depend on you as to whether a year off will probably cure his ulcer; he must depend on you whether or not a surgical operation will give him relief—he cannot decide this question himself and therefore depends on you for the decision.

I cannot tell you what to do with a gall bladder that is not behaving right. I wish I believed that all gall-bladder cases could be cured by abdominal, but I do not believe. I have had occasion in the last two years to review our last seven years of gall-bladder surgery, which I confess is to me disappointing, and I ascertain other people's results are the same. Our results in suspected and proven cases are satisfactory, but in suspected cholecystitis are not satisfactory. Take the case, for instance, of the gall bladder which fails to visualize when properly studied by the Graham-Cole test, in the patient who comes with a set of symptoms commonly associated with disease of the bladder. At operation we find a gall bladder—well, I judge it is a little pigmented and as I pinch it I think it does not empty well, so I send it to the gastro-enterologist and he says normal, normal, and where does he go from there? Again, a patient comes with a gall bladder obviously diseased and it does not contain stones, it is removed, and in six months he has the same symptoms over again; where do we go from there?

I am afraid we are going to get ourselves into the same position regarding cholecystitis that we have in appendicitis. There are no diseases in the calendar in which blunders have oftener been committed than in acute appendicitis. That the vast majority of these cases are not causing symptoms is certain—the many are not causing symptoms because the appendix has been removed, but the patient has symptoms. I believe that in four cases out of five the patient is no better off after the operation than before. And I am very much afraid we are getting ourselves into the same situation with respect to chronic cholecys-

titis. We may be able to get farther as we are able to study the physiology of the gall bladder, and in this we have made some progress, but it is a question of patho-physiology, and we are far from comprehension of the subject. There are on the whole more failures to relieve patients of chronic cholecystitis than anything else unless it be the group of cases coming under chronic appendicitis.

THE HEART IN THYROID DISEASE*

JOHN W. THORNTON, M.D., Waterloo

In recent years heart disease has assumed a leading position among the causes of death as well as among the causes of prolonged disability. This growing importance gives added interest to the study of the causes and types of cardiac disorders. Their prevention or correction usually involves the recognition of their etiology; this is especially true in the cardiac disorders associated with thyroid disease, for neglected thyroid disease can produce permanent cardiac damage, which shows little, if any, response to the ordinary management of heart disease. It is true that thyroid disturbances are not a common cause of advanced heart disease; in fact Myers' report on the heart clinics held in Iowa classified less than one percent of heart disease in this group. Yet disorders of cardiac function so frequently result from thyroid disease that their correct interpretation is of very great importance.

Even in non-toxic goiter cardiac symptoms may appear, ranging from mild degrees of vertigo, dyspnea and cyanosis up to the extreme of congestive heart failure. These results are due to thyroid enlargement of sufficient grade to interfere with the respiratory mechanism and cause pressure on the blood vessels of the neck; these added burdens on cardiac function eventually lead to dilatation of the heart, valvular insufficiency, arrhythmia and the terminal symptoms of decompensation. Fortunately non-toxic goiter of this grade is now rare.

Conditions of thyroid toxemia, however, are not uncommon and in these cases the cardiac changes are of outstanding importance. Often the earliest symptoms and signs are due to disturbed circulatory function and in advanced thyrotoxicosis the cardiac changes may be disastrous. The effects on the heart are essentially the same whether secondary to exophthalmic goiter or to toxic adenoma; since the latter often develops later in life when degenerative changes may already be established the heart damage is more likely to be serious and permanent.

The studies of Plummer and others have contributed a working hypothesis to explain the nature of thyroid toxemia. Apart from the consideration of this fundamental problem there are certain factors in thyroid and cardiac physiology which help to explain the harmful effect on the heart and its functions. One of the primary effects of thyroid toxemia is an increased metabolic rate, leading to compensatory changes in various body functions and ultimately to degenerative tissue changes induced by the increased rate of tissue destruction; there is also probably a direct toxic action of the abnormal secretion on tissues with a specific affinity or some preexisting damage. The increased metabolism demands of the circulation changes comparable to those of strenuous exercise; the increased oxygen consumption calls for an increased rate of circulation; this must be secured by an increased heart rate or an increased output per beat or both. The additional work leads to muscular hypertrophy and finally to exhaustion and dilatation, a result hastened by the excessive catabolism of the heart muscle in common with other tissues. Like other muscles the myocardium possesses properties of irritability, contractility, conductivity and tone, specialized in different regions of the heart. The effect on the heart of any toxemia, including that of hyperthyroidism, is determined largely by these specializations in heart function and revealed by alterations in them. Prominent among the features of thyroid toxemia are an increased cardiac irritability, diminished tone, impaired contractility and conductivity.

The disturbed cardiac function gives rise to symptoms and complaints which not infrequently dominate the clinical picture in these cases, either in the incipient or in the advanced stages. Other symptoms usually can and must be discovered for the proper valuation of the cardiac changes but it is often the latter which first attract attention.

Tachycardia is usually the earliest cardiac disturbance and is so frequently seen that a diagnosis of thyroid toxemia is rarely possible without it; it may at first be intermittent and later continuous. It is classed as a sinus tachycardia; there is a rapid, regular sinus rhythm with a rate approaching 100 or more; the rate is very unstable, showing inordinate response to excitement or physical exertion. Associated with the increased rate there is often in the early stages a more forceful contraction of the heart. These two factors may combine to cause an unusually forcible or tumultuous heart action, which is evident to the patient or even to others; frequently they complain of inability to sleep on the left

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side or that they either feel or hear the heart pound when lying down; other complaints of palpitation, pains about the heart, dizziness, weakness, etc., may be made; as a result of this overactivity there may be accentuation of the third heart sound suggestive of the murmur of mitral stenosis. Willius has found this tumultuous action of the heart more marked in exophthalmic goiter than in other conditions with the same metabolic rate, suggesting increased irritability of the heart muscle from a local toxic action. The tachycardia is not an evidence of myocardial weakness or pathology but is merely a physiological response to the demands of the increased metabolism; on the other hand the rate itself is one of the factors in the subsequent myocardial exhaustion.

Vascular changes are usually associated with these early results of the heightened metabolism. There is marked vasomotor instability, and relaxation, shown by flushing of the skin, sweating, dermatographia, vascular throbbing, capillary pulsation, etc. The relaxation of the peripheral vessels tends to lessen the effort required of the overworked heart. This is more evident in exophthalmic goiter than in toxic adenoma; the latter is more likely to be complicated by degenerative changes in the vessels. In exophthalmic goiter the diastolic pressure is often slightly below normal from this relaxation while the systolic pressure is increased by the increased ventricular output; hence there is an increased pulse pressure. In adenoma there is less relaxation so the diastolic pressure may even be higher than normal; the systolic reading is also relatively high, so the pulse pressure is greater than normal. The pulse pressure in connection with the pulse rate is a rough indicator of the circulation rate and hence of the metabolism.

Relaxation of cardiac tone also occurs even without marked cardiac disease; the increased heart area, shown either by X-ray or percussion, is due in part to this dilatation and partly to the hypertrophy of work; loss of tone at the mitral ring with resulting mitral insufficiency is the probable explanation of the apical systolic murmur which is often heard; another functional murmur is often heard at the third left interspace, likely due to changes in the blood flow from the rapid rate; both murmurs usually disappear if the toxemia is corrected.

Lev and Hamburger have described attacks of angina pectoris in hyperthyroidism and believe substernal chest pain of this type is much more common than usually thought, being obscured by the predominance of other symptoms. The degenerative changes in the heart resulting from hyper-

thyroidism are myocardial rather than vascular; in cases with angina there is probably potential impairment of the blood supply of the myocardium because of coronary sclerosis, anemia, etc.; with this handicap the heart is unable to respond satisfactorily to the excessive demands of the thyrotoxic state and develops angina in much the same way that others respond to exertion.

If hyperthyroidism persists disturbances of cardiac rhythm very frequently follow, most often in the form of auricular fibrillation. This may be either transient, intermittent or constant; occasionally it may appear as a very early symptom but it usually develops where the toxemia is of long standing and its constancy depends much more on the duration of the disease than on its intensity as judged by the metabolic rate; it is often the first important indication of myocardial damage, at first appearing in transient attacks and later becoming constant. The frequency of the condition is much the same in either type of toxic goiter, in 22% of the cases of exophthalmic goiter and 24% of adenoma with hyperthyroidism as reported by Willius, Boothby and Wilson. It is most often seen in persons over 45 years of age where there is already some arterio-sclerosis present; Phillips and Anderson report an average age of 47 years, with a range from 22 to 64, in a total of 120 cases. In auricular fibrillation there is an absence of coordinate contraction of the auricles accompanied by a total arrhythmia of the ventricles, with marked variation in the strength of the beats, some being so ineffectual as to cause a pulse deficit; the rate of the ventricle depends on the integrity of the auriculo-ventricular conduction and is usually from 90 to 160 in untreated cases. Clinically this condition may be suspected when the heart beat is so grossly irregular that no evidence of a dominant rhythm can be obtained; exercise will increase the heart rate and accentuate the irregularity. Any undue stress, e.g., an operation, intercurrent infection or an exacerbation of hyperthyroidism, may bring on fibrillation in hearts in which there was no previous evidence of myocardial damage; its sudden onset under stress is sufficient evidence for suspecting hyperthyroidism. The recognition of auricular fibrillation is very important since the operative mortality is higher in cases where it is present and since this added risk can be appreciably lessened by proper preparation; operative relief of the hyperthyroidism will often correct the fibrillation if the heart has not been permanently injured and if it is not complicated with marked arteriosclerosis.

Other cardiac irregularities are less common and less significant. Premature contractions oc-

cur but are sometimes due to other causes and neither contraindicate operation nor clear up after it; in others they are attributed to increased cardiac irritability and do not necessarily indicate organic change in the myocardium. Sinus arrhythmia also occurs, due to alterations of vagal tone but without much significance. Paroxysmal tachycardia is rarely associated with hyperthyroidism and it is doubtful if it is due to it when present. Auricular flutter may occur rarely; Phillips and Anderson report only two cases as compared with three hundred of fibrillation; it probably denotes serious myocardial degeneration, causing an abnormal focus of irritability which finally overshadows the normal sinus activity. Disturbances of conduction such as delayed A-V conduction, heart block, etc., are rare and usually due to some other cause; they indicate marked myocardial damage.

Increasing impairment of cardiac efficiency develops in the more advanced stages producing all grades of disability up to that of congestive heart failure, the so-called thyrocardiac state. This extreme is really not characteristic of pure thyroid intoxication acting on the undamaged heart of the young but usually occurs in hearts already impaired when the toxemia is imposed on it; hence it is relatively more common in older persons and in adenomatous goiter. The crippled heart with diminished reserve is unable to support the burdens imposed on it by thyroid intoxication; the persistently excessive rate, together with the absolute irregularity of fibrillation, cuts down the cardiac rest periods to a point where failure must follow. This rarely occurs where there is only transient fibrillation but as it becomes more constant the handicap is too great and the heart finally presents the symptoms of true congestive failure-dyspnea, orthopnea, overfilled veins of the neck, bloody expectoration, rales in the lungs, engorged tender liver, and edema, which may extend to the waist or above; the heart shows marked enlargement even to the axilla, systolic murmurs (rarely diastolic unless there is preexisting rheumatic heart disease), rapid rate and almost always the absolute irregularity of fibrillation. The failure may be inconstant, probably from remissions in the toxemia, or steadily progressive. The proper diagnosis of this thyrocardiac state is of extreme importance; the symptoms of decompensation are only too evident and tend to direct all attention to the embarrassed heart; but the thyroid toxemia is less easily recognized and not infrequently months or years pass before it is discovered. The picture is often one suggesting physical and mental exhaustion rather than the typical overactivation of hyper-

thyroidism. Noticeable goiter is not always present, tremor is inconstant, ocular changes are often absent; emaciation, possibly obscured by edema, and dark pigmentation of the skin are common; even the metabolism test is less reliable than usual, though a persistently elevated metabolic rate is essential to a positive diagnosis; it is however, relatively lower than in typical hyperthyroidism. In an effort to assure the detection of these cases Lahey and Hamilton formulated the following rules:

1. Every cardiac case in decompensation, or not in decompensation for that matter, with a goiter of whatever size or shape, and of however long standing without causing symptoms before the heart symptoms appeared, should be suspected of hyperthyroidism.

2. Every cardiac who has prominent or staring eyes should be suspected of hyperthyroidism.

3. Every case showing transient attacks of an established auricular fibrillation, where there is emaciation with pigmentation, should particularly be suspected of hyperthyroidism.

4. Every case of auricular fibrillation, with or without decompensation, in which there is a discrepancy between the patient's condition, the history and the heart findings, should be suspected of hyperthyroidism.

5. One should be extremely suspicious of thyroidism in every prolonged severe cardiac failure resisting medical treatment.

It is true that in all stages of thyroid toxemia the cardiac symptoms are rarely so characteristic that underlying hyperthyroidism can be diagnosed from them alone; the most that can be claimed is that they are suggestive and often they are extremely so, especially the tachycardia and fibrillation. The point of importance is that discovery of abnormal cardiac function or even of established heart disease does not complete the diagnosis; in cases showing some of the various changes described the possibility of thyroid toxemia must be kept in mind, to be proven or eliminated by consideration of the associated symptoms and the metabolic rate.

In the treatment of these cardiac abnormalities measures directed toward the heart alone usually have only limited or temporary value; for lasting or complete relief the toxemia must be eliminated and this as a rule means thyroidectomy. Even in the advanced cases with decompensation this can often be done, producing "complete relief of a complete disability." Satisfactory surgical results depend on suitable preoperative and postoperative medical care and not infrequently treatment as a cardiac case is necessary for weeks before operation can be considered. The oper-

ative dangers are lessened by reduction of the metabolic rate, restoration of the normal rhythm and partial or complete correction of the decompensation. Preoperative reduction of the metabolic rate is especially important in order to lessen the overload on the heart. In any severe cardiac disorder rest, both physical and mental, is the first essential; in goiter heart this is doubly beneficial since metabolism is at a lower level in rest. To assure rest, sedatives such as phenobarbital and bromides are useful and even morphine may be required. To some extent the destructive action of the heightened metabolism can be overcome by a simple diet of high caloric value, with restricted amounts of proteins and stimulants, and a daily fluid intake of 3000 cc. or more unless there is edema, when reduction to 1000 cc. is better. Iodine, usually in the form of Lugol's solution, ranks second only to rest as a factor in reducing metabolism; it is most valuable in hyperplastic goiter, less so in adenomatous. Restoration of normal rhythm and of compensation may result from the lowered metabolism if these disorders are not too well established; ordinarily other measures are required, such as digitalis and quinidine; often only partial correction is obtained by these and surgical elimination of the toxemia must be relied upon to secure whatever final improvement is possible.

The use of digitalis in the cardiac disorders of hyperthyroidism has been condemned as useless or harmful. It must be admitted that it is less effective than in many other conditions and there is danger of toxic action if large doses are continued in an effort to obtain comparable effect. So long as thyroid toxemia continues digitalis can scarcely be expected to slow the heart to a normal rate yet some reduction is often possible and the myocardium is conserved to that extent; as the toxemia is reduced digitalis becomes more effective. In cases with auricular fibrillation it is most valuable and will often restore the normal rhythm. In the preoperative care of fibrillation as developed by Phillips and Anderson, tincture of digitalis is given in 2 cc. doses every four hours for six doses and 1.2 cc. three times a day thereafter. Where the fibrillation is too stubborn to be controlled by digitalis quinidine has often been used successfully; it is especially recommended by Foster where there is no contraindication such as fever, edema, passive congestion of the lungs or kidneys, or pulse deficit. Postoperative use of these drugs may give additional benefit even where the preoperative care and thyroidectomy itself have yielded only partial relief to the embarrassed heart.

In cases with marked decompensation preoper-

ative care often produces partial restoration of compensation which permits operation with reasonable safety. Thyroidectomy, by removing the burden which is making the heart fail, often causes such improvement in cardiac function that more or less normal activity can be resumed; of course these results are not always complete or permanent for there may be heart damage which cannot be removed. The earlier thyroidectomy is done the greater the likelihood of minimal myocardial harm and complete restoration of normal function.

SUMMARY

Cardiovascular symptoms are extremely common in thyroid disease.

The recognition of thyroid toxemia as their cause is important since ordinary cardiac treatment is so unsuccessful and neglect may cause hopeless damage to the heart.

The cardiac symptoms are not by themselves sufficiently characteristic of thyroid toxemia but and auricular fibrillation. The nature of the cause is usually revealed by associated symptoms and metabolism studies, if its possibility is only recalled.

Treatment, both medical and surgical, is often much more successful than the cardiac condition would suggest.

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Discussion

Dr. Hugh McCullough, St. Louis—Dr. Thornton's familiarity with the subject presented and the completeness with which he has covered the various points leave very little to add. It is, therefore, my purpose merely to emphasize certain of the details he has mentioned: First, the importance of taking care of the heart in patients who have thyroid disease; second, a consideration of the thyroid in making cardiac diagnoses.

In toxic thyroid disease it is important to watch the heart as an index of progress of the case. The tachycardia that exists in connection with the rapid metabolic rate is a useful guide in determining whether or not the patient is progressing satisfactorily. Further, there is very often a response in the heart muscle to the severe poisoning that originates in the thyroid. This effect in the heart muscle may be to produce a myocardial lesion that can be recognized anatomically as well as functionally. As a result of this lesion, functional disturbances of

mechanism in the heart are common, more especially auricular fibrillation. Therefore in patients with advanced thyroid disease auricular fibrillation is quite common, which will seriously alter the prognosis for that patient.

There is another point in this connection that should be mentioned. In preparing for operation patients who have advanced thyroid disease there is danger of ventricular fibrillation developing either when the anesthetic is started or during the operation. Two drugs frequently used in these cases must be given with great caution: First, digitalis. Dr. Thornton suggests that this drug might be harmful at times. It is true that digitalis will occasionally affect the heart muscle in much the same way as does the toxicity of thyroid disease, and summation of these two agents in a patient with thyroid disease may result. In the same way auricular fibrillation may result from the use of digitalis.

A second agent used in thyroid patients and especially in preparing them for operation is some drug of the hyoscin group. This may do actual harm, and must be used carefully.

My second point is that a great many people who do not have organic heart disease complain of the heart. When such a patient presents himself complaining of tachycardia, that he cannot sleep at night because of his heart beating on the pillow, shortness of breath, etc., one of the first things that should suggest itself is thyroid disease. This condition may be easy to recognize, or its presence may require extensive examination. The condition is common in people who might be classified as cardiac neurasthenics.

Dr. Merrill M. Myers, Des Moines—Given a patient with toxic thyroid, does this patient have a thyroid heart? Tachycardia alone is not sufficient evidence upon which to base the diagnosis of a thyroid heart. Very frequently hearts are condemned for this reason alone. We should look for additional evidence before determining that the tachycardia is due to hyperthyroidism.

The three-fold evidence which can be readily detected consists of, first: congestive heart failure, or broken compensation as usually called; second, auricular fibrillation; third, cardiac enlargement. If either permanent auricular fibrillation, congestive failure, or cardiac enlargement is present singly or in combination in a patient with hyperthyroidism we may take the finding as evidence that myocardial impairment has taken place, and the diagnosis of a thyroid heart is justified. On the other hand, here is an adult patient who presents the condition of cardiac enlargement, the cause of which is difficult to interpret. Think of hyperthyroidism as a possible cause. Here another patient who presents congestive failure, which is very difficult to classify. Remember hyperthyroidism. Some of the cases of cardiac enlargement of obscure origin will be explained on the basis of long standing hyperthyroidism. The manifestations of hyperthyroidism are

protean in character, in which respect the condition is like syphilis. It is the duty of the physician to detect the earliest heart defects in cases of hyperthyroidism. It is not easy to determine just where the change occurs from a normal to a diseased heart.

Of about 2500 cases examined personally, 1238, or approximately 50 per cent, had organic heart disease. Of these patients with organic heart disease only 27, (2.1 per cent) were considered to have thyroid hearts, following the accepted criteria for diagnosis. The physician today detects hyperthyroidism much earlier than formerly, and through surgical skill these hearts are saved from damage.

Dr. C. B. Luginbuhl, Des Moines—It is with considerable temerity that I endeavor to discuss this excellent paper or to add anything further to what has already been said by the two distinguished speakers. Nevertheless, we do not want to assume the stand that the subject of thyroid disease is a closed chapter or to feel that the last word has been said.

The point I want particularly to make is this: We do not have available statistics in sufficient numbers to inform us what happens to these individuals, whether they have been operated for an acute exophthalmic goiter or a toxic adenoma of long standing. To those of you who refer your patients to the surgeon, whether your results are good or whether they are bad, I would suggest that you draw his attention to that particular patient, and in this way, especially if the results are not satisfactory, you will put the surgeon on his guard so that operation will not be as common for the thyroid patient or the so-called thyroid patient as they are at the present time. I feel that the patient with a subacute or an incipient pulmonary tuberculosis or an individual with so-called neurocirculatory asthenia should be carefully watched for a considerable period of time before being subjected to operation, because your results are anything but satisfactory. On the other hand, the individual with a toxic adenoma of long standing who has had one or at various times several of those symptoms which Dr. Thornton has mentioned, as auricular fibrillation, etc., should be put under medical care and not be operated upon until we feel that he can successfully undergo the ordeal of surgical intervention. A simple procedure that I have followed for a few years with comparatively good results and which is undertaken after compensation has been re-established, is to allow the patient to be up and around in the hospital or allowed to go home under a carefully restricted regime. If the individual will stand that strain, then the outlook for helping him by surgical intervention is good; if he will not, the results are rather questionable.

In my judgment there is in Iowa a place for an organization that will follow up these individuals who have been operated on and carefully report the data obtained either to the health officer or to the

county medical society, in order that we may see where we stand in this matter.

Dr. Thornton (closing)—I wish to thank those who have taken part in the discussion for clarifying a few of the points I attempted to bring out.

Referring to Dr. McCullough's remarks, one of my objects in writing the paper was to emphasize the necessity of proper diagnosis in cardiac complaints aside from those of advanced thyrocardiac disease, for in the case of many patients with complaints directed towards the heart, unless the correct diagnosis of the cause is made there is no diagnosis at all possible.

Another point brought out by Dr. Luginbuhl and mentioned by others also, is that the final word has not by any means been said in the study of thyroid disease. As Dr. Joseph L. Miller has stated, "Our knowledge of the patho-physiology of thyroid toxicosis is extremely limited. The present form of treatment may be the best that can be developed, but it cannot be considered as highly satisfactory. Perhaps the physiologist and chemist may soon solve the problem of hyperthyroidism so that we can attack the cause rather than to remove an organ which is possibly merely responding to some distant influence." There is a great deal of room for improvement. Thyroidectomy is the procedure to which we often have to resort, but I think there is plenty of reason to hope for further advance in the study of thyroid disease in general.

BLADDER NECK OBSTRUCTION*

GERALD V. CAUGHLAN, M.D., Council Bluffs

Obstruction at the bladder outlet may be due to a variety of causes and may occur at any age and in either sex. It is however comparatively rare in the female and in the male under the age of 40.

In the male, cases of obstruction have been noted by Young¹ and others in infancy, the obstruction being due to a congenital valve in the prostatic urethra. Occasionally this valve does not interfere with the normal development of the individual but, during his whole life, the urinary tract above the valve is obstructed and he develops a terminal uremia in early life. Such a case was seen recently in a male aged 26, who died after a short illness of uremia. Autopsy disclosed one of these valves with a tremendous thickening of the bladder and enormous hydroureters and hydro-nephroses.

A very satisfactory classification of bladder neck obstruction was recently published by Foley². Modified slightly it is as follows:

Extrinsic Causes

- A. Bladder tumor;
- B. Bladder stone;
- C. Foreign body in the bladder.

Intrinsic Causes

- A. Central nervous system disease.
- B. Anatomic.
 - 1. Inflammatory.
 - a. Acute prostatitis.
 - b. Prostatic calculus.
 - c. Contracture of the vesical neck.
 - 2. Neoplasm and Pseudo-neoplasm of the prostate gland.
 - a. Benign.
 - 1. Lateral lobe.
 - 2. Mid lobe.
 - 3. Bar.
 - 4. Collar.
 - 5. Albarran lobes.
 - 6. Cyst.
 - b. Malignant.
 - 1. Carcinoma.
 - 2. Sarcoma.
 - 3. Hypertrophy of trigone.

In view of the multiplicity of obstructive lesions that may occur, one can readily understand why it is necessary to have a thorough study of the bladder through a cystoscope in order to arrive at an accurate diagnosis, for it is not uncommon for one of these obstructive factors to occur where the prostate is moderately enlarged. Many of these can be successfully treated through the urethra thus saving the patient the suffering, time and expense necessary for a supra-pubic cystotomy.

Conditions that may simulate obstruction at the bladder neck are stone in the bladder, bladder tumor, diverticulum and the atonic bladder due to central nervous system disease. Frequently the latter condition is not suspected until the cystoscope discloses a large pale bladder, the walls of which are covered with fine trabeculations. Nothing is more discomfiting to the surgeon than to find he has removed what he supposed to be an obstructing prostate, when the condition was a faulty innervation of the bladder.

SYMPTOMS

The first symptom of obstruction is usually a slight frequency with nocturia. This may go on for a long period with no other manifestations of obstruction. Later there will be hesitation and stoppage of the stream, the urine being passed in a very small stream. As the amount of residual urine increases, the frequency increases with diminished amounts of urine. At times there may

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be slight pain particularly at the start of urination. Later, as infection intervenes, there is pyuria and frequently hematuria. Acute retention may occur at any time, particularly following exposure to the cold or after a long automobile ride. Dribbling may be present and, if due to an overflow of retention will be constant. Pyelitis from back pressure with infection may occur with the chills and fever so characteristic of infection in the kidney. As time goes on with no relief of the obstruction, there is gradual impairment of the renal function with uremia and death.

Very frequently acute retention is the first symptom of obstruction, and it is not uncommon for a single catheterization to relieve the obstruction for a long period. In support of this I have a physician aged 70, whom I have relieved by catheter twice in the past five years without any further trouble. Another physician of 72 has had retention several times but, when his acute retention is relieved, he goes along in good shape for a long period with absolute comfort as far as urination is concerned. Probably both of these gentlemen will have obstruction sufficient to seek operative relief at a later date.

DIAGNOSIS

Acute retention is very readily recognized by the patient's discomfort and the distention of the lower abdomen.

Acute prostatitis is ordinarily easily diagnosed by the sudden onset, fever and by rectal examination. In chronic obstruction with a considerable amount of residual urine, the area of bladder dullness is increased. Rectal examination is made for the purpose of determining the tone of the rectal sphincter, the membranous urethra is felt and the prostate is examined as to size and consistency. Careful search is made for nodules particularly near the mid-line. If one is felt in that area and stony hardness is present, the diagnosis of carcinoma becomes probable although a prostatic calculus may simulate malignancy. In case of doubt an X-ray will disclose or rule out the stone. If retention is not acute, the patient urinates, after which the cystoscope is introduced and the amount of residual urine is noted, then the bladder is filled and the bladder capacity ascertained. A careful inspection of the bladder is made for inflammatory changes, trabeculation, cellule formation, diverticulum, tumor, stone, the thickness of the interureteric ridge, the position and condition of the ureteral orifices and the obstructing lesion. With the cystoscope in place, a finger is introduced into the rectum and the prostate is examined between the finger and the cystoscope in order to estimate the thickness and the degree of hardness of the gland. A statement is made by surgeons who do

a preliminary cystotomy for drainage, that the above information can be ascertained by a finger examination of the bladder at the time the suprapubic drainage is made. I do not believe that as much information can be obtained in that manner as with the cystoscope.

MANAGEMENT

All cases of chronic bladder neck obstruction, except the rare case which is relieved of the acute retention by a single catheterization, should be studied cystoscopically.

Acute prostatitis is treated by rest in bed, hot Sitz baths and sedatives. Occasionally it is necessary to catheterize for a few days until the swelling has subsided. If it goes on to abscess the pus should be evacuated through a perineal incision or by the Stevens method, in which a 24 F. sound is introduced into the prostatic urethra, a finger introduced into the rectum to steady the gland and the sound turned to a 90 degree angle and forced into the lateral lobe of the prostate, the procedure then being repeated on the opposite lobe. I have found the latter method a very satisfactory one for it accomplishes the purpose of evacuating the pus, it leaves no draining wound and, in my hands, is followed by prompt healing.

Prostatic calculi, producing obstruction, calls for a perineal prostatectomy, for it is only by this method of approach, that all of the calculi can be removed. Where there is marked obstruction and infection, an indwelling catheter should be used for the purpose of relieving the back pressure and clearing the infection. If there is an acute retention, the bladder should be emptied very slowly. This may be done by releasing a clamp on the catheter every fifteen to thirty minutes and allowing one-half ounce to one ounce of urine to escape or by introducing a No. 6 ureteral catheter into the bladder. Drainage through this catheter is so slow as to prevent the bad effects of sudden release of the back pressure on the kidney. Ordinarily the indwelling catheter can be worn with comfort by the patient but occasionally it sets up a marked inflammation throughout the urethra. In this type of individual, one can catheterize twice a day and wash out the bladder thoroughly, after which one per cent mercurochrome solution or 1-500 mercoxyl solution is instilled into the bladder. However, where the indwelling catheter cannot be tolerated, it is better to drain the bladder by a suprapubic incision. This is a valuable procedure because it gives an indication of the patient's ability to withstand operative procedure and vaccinates him with his own infection so that the subsequent prostatectomy is made safer.

The general condition of the patient is ascertained, the blood pressure being watched daily for evidences of myocarditis. Prolonged rest and the use of digitalis is of value for this condition. The blood urea should be estimated, several tests being made and should be within normal limits. No operative procedure should be attempted if the blood urea is increasing, it being far better to hold the patient until the blood urea begins to fall. This is favorably influenced by a low proteid diet and large amounts of fluids, as much as 6,000 c. c. to 8,000 c. c. being given daily. Kidney function should be ascertained by the use of phenolsulphonephthalein, particular attention being given to the appearance time of the dye.

For the patient, who is to have a prostatectomy, it is good surgery to ligate the vas deferens bilaterally, this being done by the method of Colston,³ who isolates the vas on either side through the scrotal skin, grasps it with an Allis forceps and, with a cutting needle threaded with silkworm gut, passes the suture through the scrotal skin beneath the vas and ties the silkworm tightly around it. This procedure eliminates epidymitis, which is so frequently a very painful and febrile postoperative complication. The patient, now being in good condition and feeling well, operative procedure may be done. Fluids are pushed before and on the morning of operation.

Cases that may be treated through the urethra include bar obstructions, stone in the bladder, tumor in the bladder, contracture of the vesical orifice and prostatic cyst. Bar obstructions, collar, Albarran's lobes and contracture of the vesical orifice are successfully treated with the Young punch or Caulk's cautery punch. Very frequently the obstruction of a prostatic carcinoma can be relieved for a long period by the use of the cautery punch. Stone in the bladder can be crushed, while tumor in the bladder and prostatic cyst may be treated with fulguration. Hypertrophy of the lateral lobes, mid lobe hypertrophy and hypertrophy of the trigone should be operated upon. Prostatectomy may be done by either the suprapubic or perineal route, depending upon the choice of the operator. The anesthetic should be carefully chosen. For those patients with a moderately high blood pressure, I prefer spinal anesthesia according to Pitkin while, with a pressure of 130 or less, I use local anesthetic and a little gas.

Hypertrophy of the trigone demands a resection by the suprapubic route. Carcinoma of the prostate may rarely be treated successfully by a total prostatectomy following the method of Young. Usually however, operation is not justified and one should content himself by relieving the obstruction either by the punch operation or by permanent

suprapubic drainage, radium and X-ray being used to combat the growth. Sarcoma is hopeless and rapidly fatal. One is only justified in relieving obstruction.

CONCLUSIONS

1. Bladder neck obstruction may occur in either sex and at any age although it is most common in males after the fortieth year.
2. Cystoscopic examination as a routine should be done in all cases of chronic obstruction at the bladder neck.
3. No operation should be done with a rising blood urea content.
4. Well managed pre-operative care, with ligation of the vas deferens preceding prostatectomy, will show a marked lowering of the mortality and morbidity of operations on the bladder neck obstructions.
5. Carcinoma of the prostate should be subjected to the minimum amount of operative procedure necessary to relieve obstruction.

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Discussion

Dr. Henry R. Searle, Iowa City—The confidence I have in the man with whom I have been working for the past three years is the chief factor that gives me sufficient courage to attempt a discussion before this group. Dr. Caughlan has covered the subject thoroughly and there is little for me to say except to emphasize a few of the practical considerations.

First I would like to speak for a reasonable conservatism in determining indications for prostatectomy. An attack or two of acute retention is not enough by itself to indicate operative interference. We have had several of such cases which have gone on for three or four years at least without any further trouble.

The pre-operative care of cases of bladder neck obstruction is a factor that is emphasized wherever the subject is discussed, and it will bear much repetition. If we were to estimate the value of the various steps in prostatectomy I would say that seventy-five per cent of our success or failure in handling the case depends upon the pre-operative care that is exercised. We do a routine ligation of the vas deferens pre-operatively and have had no reason to regret it. Our technic is a little different from that described by Dr. Caughlan, in that we cut down upon the vas and divide it between ligatures. We have had no cases of epididymitis following this procedure.

In regard to diagnosis of cancer of the prostate, we make a careful examination of the gland for the beginning hardness which is so characteristic of a malignancy. Our anxiety to find this malignancy if present is not that we may operate, but rather that we may avoid operation. We believe more harm than good is done by taking out a cancer of the

prostate. Our treatment in these cases has been the symptomatic care of obstructive symptoms when they appear. This may mean permanent suprapubic drainage in the later stages of the disease.

I agree very heartily with what Dr. Caughlan has said about being able to see more through a cystoscope in the bladder than one can see with the bladder open at operation. We have found the cystogram to be of great value in these cases, and a cystogram is made of every case. We take exposures stereoscopically in the anteroposterior plane and in semilateral oblique plane. The latter plane gives us a view without having to ray through both hips, which would be an area of considerable density. The prostatic defect when present is very definite and is best seen in this semilateral oblique view. Given a patient in the prostatic age with a history of bladder neck obstruction, the finding of residual urine, a hypertrophied prostate per rectum, and a definite prostatic filling defect in the cystogram, we feel that a positive diagnosis can be made without the use of the cystoscope. However, if there is any doubt, as there is in a minority of the cases, we do not hesitate to use the cystoscope.

I would like to say a few words about treatment of the paralyzed bladder. These cases are apt to fall in two large groups: First, those with retention of urine, and, second, those with incontinence either true or paradoxical. About ten years ago Dr. Alcock became dissatisfied with the condition of patients cared for either by the catheter or by allowing them to develop the so-called automatic bladder and instituted suprapubic bladder drainage. The results have been very gratifying. The cases have been provided with adequate drainage and with means of combating infection. Without appropriate treatment these patients are apt to be a miserable and hopeless lot. They must either have constant nursing care or be allowed to remain in bed soaked in their own urine. Suprapubic drainage in these cases not only renders them easier to care for, but makes them a great deal more comfortable.

Dr. Hugh Cabot, Ann Arbor—One could wander about the outskirts of this subject for the rest of the month. Robbed of its frills, there are three kinds of bladder neck obstruction with which the physician is concerned. The balance of them he would see just enough to classify them with the late results of stricture of the urethra. The first type of bladder obstruction to which I have referred consists of those cases of vesical obstruction that one sees in the late thirties and in the forties. This condition is I think becoming very much less frequent. I am satisfied that twenty-five years ago the cases were much more common.

The other two kinds of bladder neck obstruction consist of the atrophic types, and what has long been called the hypertrophy of the prostate, which, of course, is not a hypertrophy and the prostate itself is not involved. The whole prostate gland remains and is compressed into what was years ago called the surgical capsule. You perhaps have seen in writings of the earlier men the statement that the

prostate was removed by prostatectomy. Such has never been or ever will be done—it cannot be done except at autopsy or in the laboratory. You remove things that have occurred on top of the prostate, the prostate itself remains; it remains as a compressed, obliterated surgical capsule.

I wish to call to your attention something overlooked in the literature, and that is the incidence of heredity in the obstructing lesions of the prostate. It is extraordinary to what extent these things run in families, and it is very important to suggest to a man who comes to you with symptoms suggesting at least that his prostate is beginning to obstruct, that an investigation of his heredity be made in order to enable you to prolong his life. I have been studying these cases for years. In one case I assured a man of 55 that it would not be necessary for him to have his prostate out because it would not grow, and it did not, based on the fact that the disease had not occurred in the various generations of his family. It is becoming increasingly possible to investigate the heredity of the prostate. It is wise to advise a man whose ancestors have had this trouble that he consult capable people in regard to the condition. In the way of prognosis this is very important. Often we see men of large affairs to whom a guess of what they can do in the next ten years is exceedingly important.

In regard to operative treatment of cancer of the prostate, I believe this to be nothing short of meddling. I think careful study will show that a greater percentage of these patients will live longer and more comfortably without an attempt to remove the prostate than they will if such attempt is made. If you are going to try to abolish a cancer of this type you must eradicate the whole with the bladder neck. I may say also that I have not myself had good results either from radium or X-ray in this field and have seen many patients violently injured by these methods of treatment. Therefore I am not satisfied that they are indicated. These cases should have permanent suprapubic drainage. The disease usually runs a very benign course. One case ran as follows: After the death of my cousin, Dr. Arthur Cabot, I saw a patient he had seen during the five years previously and whose case he had diagnosed as cancer of the prostate. The patient was a prominent man. He came to me because he had an irritable bladder, and I told him to go and play with his railroad. He returned in five years. He ran down hill for fifteen years, then went to bed and died in two months. That kind of thing is not so very rare.

We are becoming more and more aware of the frequency with which metastasis takes place, and I suggest it is the little prostate like the little dog that makes the most noise. It is the little prostate that is most apt to have bone metastasis, I do not know why. Be very suspicious of a man of 60 who complains of rheumatism in his hind leg, for he probably has cancer, and careful X-ray studies should be made. The cancer in the prostate may be so slight as to be readily overlooked. In one case my examination failed to reveal cancer, and I said he did not have

it; the youngster working with me stated I was wrong and he was right, and X-ray showed metastasis. So, although the prostate may be small, if rheumatism is present look hard for the trouble in the bones; never mind the prostate, but look for trouble in the bones and you will often find it. I suppose it is wise to keep on banging away at the fact that operative treatment of obstructed prostate is the smallest part and the easiest thing to do if rheumatism is present; it is a very simple technical procedure, but I think few fields are more important in deciding what to do.

The great improvement that has taken place in this condition is due to one thing only, and that is drainage. In 1912 Tenney of Boston analyzed 5,000 cases of death following operations upon the prostate and found that in over 80 per cent of the cases death was due to uremia. Failure of the kidneys killed these patients. Within the last two years I have been concerned in running a much smaller group, about 1500 cases, and deaths from uremia amounted to less than five per cent. The patients are now dying of other things. We should look after the kidneys or leave them alone without undue violence, but with drainage below and water above; put water in above and let it out below. That drainage is of two characters: the inlying catheter is the method of election when tolerated. According to the group of people you get this tolerance will be tremendously varied. In my experience only about 25 per cent of people will tolerate the inlying catheter. The other type of drainage is secured by resort to suprapubic, but in only about 25 per cent of our cases are we satisfied to do the ideal operation; that is, the one-stage operation of prostatectomy. I am sure that people at the Mayo Clinic are able to do the one-stage operation in a much larger percentage of cases. That ability depends on a very able corps of attendants, who see to it that the catheter is draining. That is where most of the failures in catheter drainage split. At the Mayo Clinic they have such a group.

People who have rises in the blood nitrogen are found to be very bad risks. They are the kind of risks you would do better to let the other fellow look after. The minute you see such a case, go to Europe, something to get out of the case. The great majority of them will be very shaky and will have an insufficient amount of kidney to live upon, and yet do not show nitrogen retention. Undoubtedly the best test we have is the red ink test; it is not very scientific, but is effective; if good, you believe the patient has good kidneys, but he has not, they only are bad; and if the test is bad, the kidneys are very bad. However, you may be wrong in your conclusions, the kidneys may after all be good. The test should be run several times. The section of my staff dealing with this question got me into a corner by asking,—Will you kindly tell us when you decide to do the operation on these people after drainage? They asked me this question because they sometimes get patients all prepared and I say I will not operate. Some of you must know the quotation about any process of mind; that is, the decision of a judge in

Europe as to what process of mind is involved in reaching a conclusion. My colleagues of Europe, not being part and parcel of the United States, I dissent from their opinion; no process of mind is wrong, it is a matter of conscience. Things don't look right to me or they do look right to me. When my colleagues have collected all the facts and some things not facts and it is our intention to operate, if the patient does not look right to me I will not operate. And this decision rests upon observance of the relation between the sides of the tongue and the center of the tongue. There is a great deal about the tongue we do not pay attention to. In a case of bad kidneys I believe I can learn more by looking at the patient's tongue than with all the dope they give me, but I can't tell what it is. I secure information by observing the tongue, and it concerns chiefly the appearance of the border of the tongue; the tendency of the tongue to dry on the border I do not like, the proneness of the tongue to develop bullae around the edge I do not like. I do not know why it is, but I do not like the appearance of this tongue. I prefer to wait for possible improvement in the patient's condition.

The suggestion was made, which I think is very attractive, that one of the purposes of the two-stage operation is to prevent killing the patient. There is no procedure that involves less violence than suprapubic drainage. Many patients who have gone along with suprapubic drainage for months or years will finally be scared away from this treatment and decide to be relieved of their prostates. As I remember, Pelcher is entitled to the credit of popularizing the two-stage prostatectomy, which goes with two other things that are eminent—the Ford car and ether.

Dr. Caughlan (closing)—In the last analysis I would say that my presentation was a preliminary discussion and Dr. Cabot's the paper.

Regarding the cystogram, this probably would be valuable. I have not used it for diagnosis of these conditions, but believe it would be a good thing, and I intend to employ it and become familiar with the readings.

My experience with carcinoma of the prostate has been rather limited, but in future, in every case of positive diagnosis of carcinoma I am going to say to the patient: Let this go until it causes obstruction, then come back and I will institute drainage. Nor will I employ radium, for I believe any form of attack stimulates rather than retards the growth.

THE AMERICAN MOUTH HEALTH ASSOCIATION

The American Mouth Health Association is the name of a recently organized body of physicians for the promotion among the lay public of a better understanding of healthful living, particularly with reference to mouth hygiene. The headquarters of the association are in the Essex Building, Minneapolis. Dr. Thomas B. Hartzell, professor of mouth infections at the University of Minnesota Medical School, is president of the Board of Trustees.

College of Medicine State University of Iowa

(From the Proceedings of the University Hospital Medical Society.)

SOME RESULTS OF APPLIED HEALTH WORK AMONG SELECTED NATIVE POPULATIONS

M. E. BARNES, M. D.

From the Department of Preventive Medicine and Hygiene

The chief industry of the Straits Settlements, Federated Malay States, and Sumatra, is the production of rubber, the development of which has required the organization of large estates and the importation of very considerable numbers of laborers. The rubber tree is not indigenous to those regions, and a great deal of clearing of land is necessary before the trees can be planted and brought into production. Each tree must be tapped and the latex collected daily. In times past, the clearing and other operations connected with the industry have been accompanied by an appallingly high mortality among the coolies employed for this purpose. In Malaya the coolies come from British India.

The conditions which prevailed in 1911 in Malaya may be deduced from the following facts gleaned from an official government report: An estate of 1,632 acres had an average labor force of 870, all adults. Among these 202 died during the year—an annual death rate of 232 per 1,000. Hospital admissions number 1,084, the cost of medical care amounting to \$6,222.00. The total loss of labor through illness, absconding, removals, etc., was practically 100 per cent, i. e., the entire force had to be replaced yearly. A grave-digging gang was constantly employed. Coolies not infrequently died in the field. It was not unusual

for one-third of the coolies to become too ill in the field to complete their daily tasks. This condition prevailed before the Government undertook the work of supervising estate health work.

The same estate was officially described twelve years later (1923). Although the acreage had been increased by 1,000 acres, the labor force was slightly under half that employed in 1911. The output had increased nine-fold. The death rate had fallen from 232 to 3 per 1,000. The annual hospital admissions were 232 as compared with the former 1,084. The labor turnover from all causes was 30 per cent as against 100 per cent. The expenditures for medical care were approximately half those of 1911, and the combined cost of medical care and preventive measures equalled the cost of the former in 1911. These phenomenal results were attributed to improved facilities for examining and treating the coolies, to antimalarial measures, and to improved sanitary conditions. No data are available for coolies as distinguished from the general population but the improvement in their lot can be deduced from the fall in the general death rates from 63 per 1,000 in 1911 to 13 in 1923.

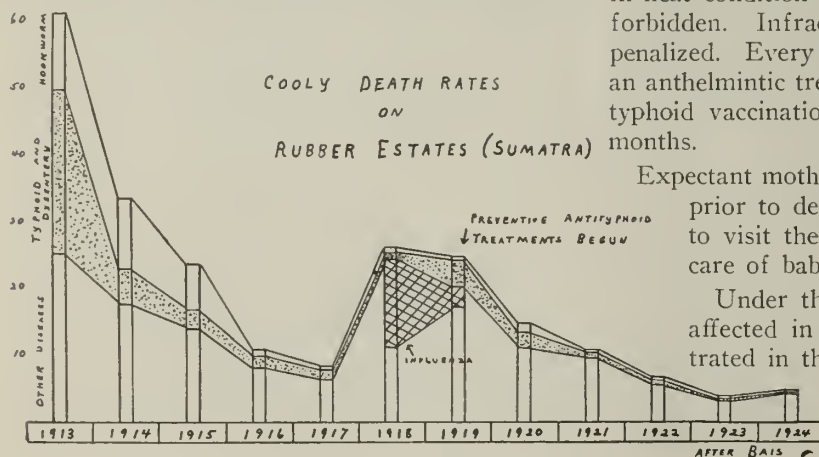
No more striking illustration of the importance of soil sanitation and other applied health measures can be cited than the results obtained on the rubber estates of Sumatra, where the laborers are imported from Java. The Sumatran system is somewhat as follows:

On arrival all coolies are placed in concentration camps, are examined and given an anthelmintic treatment. They are then distributed to their respective estates. The coolies are indentured for three years, and therefore have three alternatives offered them: (a) they must work; (b) they must go to the hospital; or (c) they must go to jail. No sick coolies are allowed to lie around the barracks. Latrines are provided, kept in neat condition and all soil pollution is strictly forbidden. Infractions of this rule are suitably penalized. Every six months all coolies are given an anthelmintic treatment. Of recent years, anti-typoid vaccinations are administered every six months.

Expectant mothers are hospitalized some weeks prior to delivery and a nurse is employed to visit the barracks and to supervise the care of babies and young children.

Under this system mortality rates were affected in a striking manner, as is illustrated in the graph. (Graph 1.)

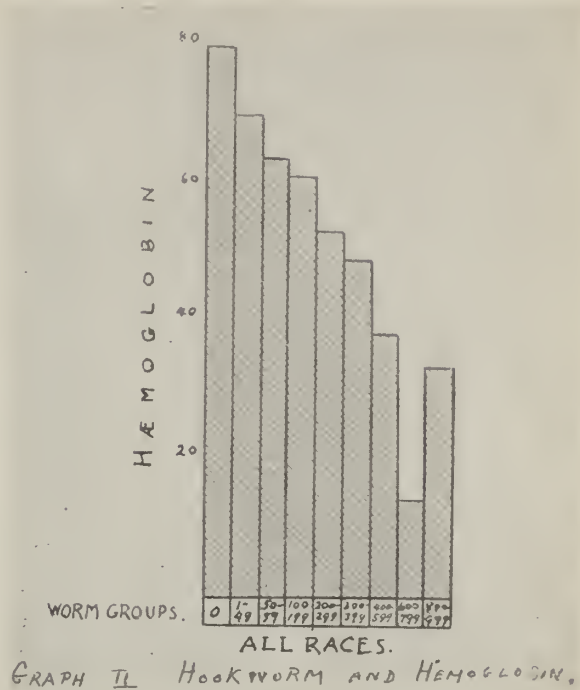
In connection with this graph, three points are worthy of special emphasis:



1. *The phenomenally low death rate attained.*
This rate (around 5 per 1,000) compares most favorably with the death rates from all causes for a similar age group (chiefly 20 to 40 years) in the United States where the rates range from 4.7 to 8.2. Considering the conditions under which these results were achieved they constitute one of the most remarkable records thus far reported from the Far East.
2. *The relative fatality of influenza.*
Serious as was the influenza outbreak of 1918-19, it offered less than half of the menace to life of the ordinary conditions prevalent in 1913.
3. *The effect of hookworm infestation upon mortality.*
Coincident with the removal of hookworms there was a marked decrease in mortality from typhoid fever and dysentery, and from all causes as well. The debilitating effect of hookworm infestation is illustrated in the accompanying graph wherein the relation is shown between the numbers of hookworms harbored and the average hemoglobin. (Graph II.)

It is obvious that the wide-spread prevalence of such an infestation must be reflected in the death rates from all causes, since it cannot but lower the general resistance. The extent of this infestation in tropical countries is exemplified by the results of surveys in Straits Settlements. A cross section of the entire native population shows infestation rates ranging from 29.3 to 80.1 per cent. Between 60 and 70 per cent of those affected harbor 25 or less hookworms. It is conservatively estimated that 10 per cent are heavily infested.

The majority of the coolies employed on Far Eastern rubber estates come from the most congested population areas in the world, and most of them have never known what it is to eat regu-



larly enough to satisfy hunger. On this account it would be logical to infer that their basic resistance was low and that worm infestations might have an exaggerated effect. That basic resistance is not permanently impaired is shown by the fact that if these coolies are properly housed, fed, and freed from their parasites, they exhibit a higher resistance than does the white population in the same area. The following table presents interesting evidence along this line. Allowing for the fact that the European staff was probably hospitalized at an earlier and for a more prolonged period than the native staff, the latter still shows a marked superiority, especially in its resistance to infections of the throat and intestines. A similar high native basic resistance to pyogenic infections has been repeatedly noticed by western physicians working in the Far East.

ANALYSIS OF DISEASES OF DIGESTIVE SYSTEM (Dr. D. H. C. Given)				
Singapore Naval Base—1925				
	Navy		Native Labor Force	
	Case rate per 1,000	Days illness per 1,000 men	Case rate per 1,000	Days illness per 1,000 men
Teeth and Gums.....	3	29	10	7
Sore Throat, Pharyngitis.....	7	77	1	3
Tonsillitis	30	347	1	2
Stomach	10	135	—	—
Intestines	20	284	14	31
Hernia	4	127	—	—
Rectum and Anus.....	4	106	—	—
Liver	3	76	1	7
Total	81	1,181	27	50

The data cited illustrates the possibilities inherent in applied health work even under the most adverse conditions in the tropics. Death rates comparing favorably with the best in the United States are actually being attained in certain tropical localities. Although political, racial, and other conditions at present hinder the application of these methods to the general population, the results amply demonstrate the trend which may be expected when their general use becomes possible.

NEOPLASMS OF THE ENVELOPES OF THE NERVOUS SYSTEM

CHARLES F. OBERMANN, M. D.

From the Department of Pathology

The term "meningioma" was suggested in 1922 by Cushing to designate the neoplasms rising from the meninges which had formerly been known under a multiplicity of names. The more commonly used names are dural endothelioma, psammoma, meningeal fibroblastoma, and arachnoid fibroblastoma. Cushing's term is simple and non-committal. It merely indicates that the growths arise from the meninges. The name has been found useful in speaking about the neoplasms of the meninges. In the Department of Pathology, several neoplasms have been encountered which grossly were typical meningiomas. However, upon microscopic study, the histology of these specimens was atypical. This served as a stimulus to make the neoplasms of the envelopes of the nervous system the subject of a special study.

In man, the cerebrospinal axis is enclosed in three membranes whose function and appearance are of a connective tissue nature. It is generally considered that their origin is derived from the perimedullary mesenchyme.

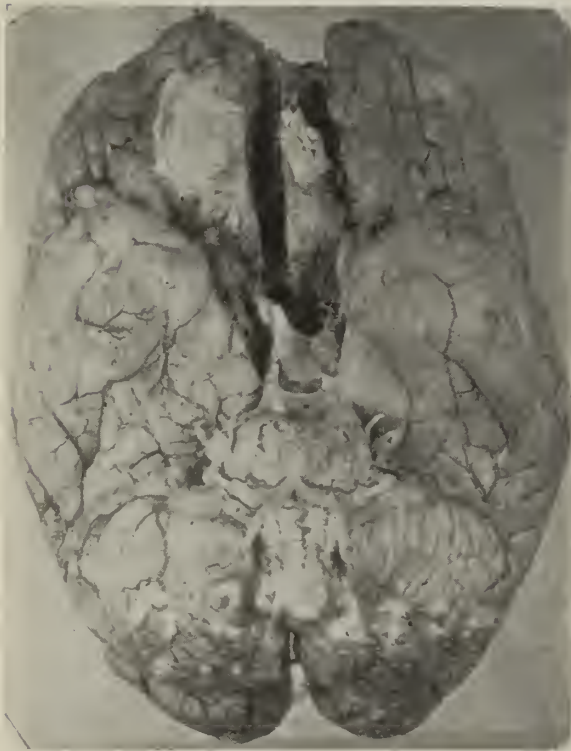


Fig. I. A-29-27. A meningioma invaginated into the ventral part of the right frontal lobe. The histology is made up for the most part of cellular whorls with an occasional psammoma body. Diagnosis: Meningioma, mesothelial type.

The outer membrane, the dura mater, is a tough, fibrous sheath adherent to the bones of the cranium, but separated in the vertebral canal from the periosteum by a cushion of fat. In the adult the dura is separated for the most part from the middle membrane, the arachnoid, by a potential space known as the subdural space.

The two inner membranes are known as the leptomeninges and are made up of the arachnoid,



Fig. II. A-23-124. Meningioma arising from the region of the transverse sinus and invaginating into the occipital pole. Diagnosis: Meningioma, fibroblastic type.

which is a delicate avascular sheet of connective tissue loosely attached to the innermost membrane, the pia, by numerous fine trabeculae bridging the space which separates them.

In certain definite places the subdural space is obliterated by a fusion of the arachnoid and the dura. These places of union are found to be caused by foci of proliferating buds on the surface of the arachnoid which infiltrate and invade the dura. In the adult these proliferations can easily be seen macroscopically and are known as Pacchionian Corpuscles. It is these Pacchionian Corpuscles that are thought to be the most common source of the meningiomas. The pia and dura, however, may also give rise to neoplasms.

The typical meningiomas are usually found to be attached to the dura. Ordinarily they do not invade the brain and spinal cord, but by expanding within the capsule, displace the nervous tissue. Grossly they are rounded, nodular, and firm. They are found to be invaginated into the nervous tissue and at the time of post mortem can easily be lifted from their socket. They may be attached to the dura by only a small stalk or they may have a broad base and appear as a plaque.

These neoplasms are ordinarily considered to be benign. However, the meningiomas may cause changes in the overlying bone. These consist of proliferative changes in the bone accompanying

infiltration by the tumor cells. There may be a marked hyperostosis of the cranial bone which overlies a meningioma. On the other hand, there may be destruction of the bone with the menin-

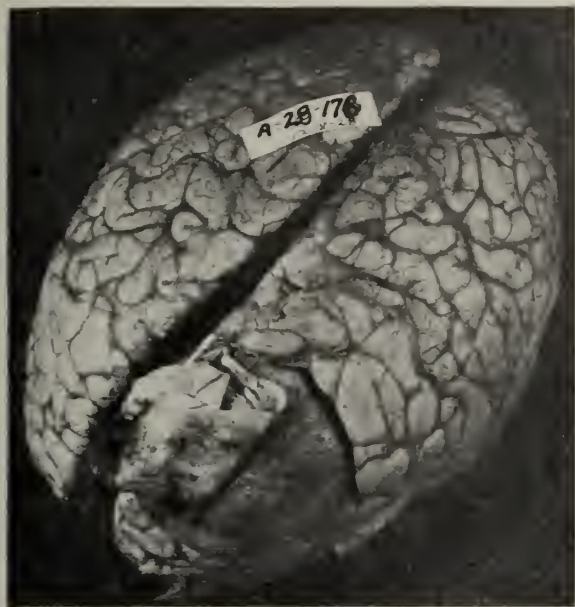


Fig. III. A-28-178. One of the meningiomas showing the histology of an angioma. Diagnosis: Meningioma, angiomatous type.

gioma perforating the skull. Also, a portion of the meningioma may appear on the outer surface of the bone by growth through the bone.

The spinal meningiomas are generally thought not to invade the vertebrae. This may be due, in part, to the fact that the dura is separated from the periosteum and the vertebrae by a layer of fat. However, arthritic changes in the vertebrae at the level of meningiomas have been described. These changes may be similar to the cranial hyperostosis.

The meningiomas tend to soften and degenerate at the center. Sometimes there may be considerable calcium laid down in such degenerated centers.

Histologically, these tumors range from very cellular types to others which are very dense and fibrous. Some have a tendency to a concentric arrangement of the cells so that cellular and fibrous whorls of various sizes are formed. These whorls are caused by the cells wrapping around each other, around strands of connective tissue, or around blood vessels. There is a tendency to calcium deposition in the whorls to form psammoma bodies.

In the cellular type, the cells have a fat oval nucleus and a voluminous, more or less flattened cytoplasm. In the more fibrous type the cells ap-

proach a spindle shape. Palisading of the nuclei is more common in the fibrous type.

The amount of intercellular substance varies with the rapidity of growth. In the cellular rapidly growing types, it is scant, but in the slowly growing types, fibroglia, fibrils, elastic fibrils, and collagen are seen.

The blood supply and stroma are derived, for the most part, from the dura. The fibroblasts of the dura are stimulated to activity by the invading neoplastic cells. They may proliferate to form a new stroma which divides the tumor cells into alveolar masses or spreads diffusely between them. In these tumors the intercellular products of the neoplastic cells and of the stroma are the same so that it is sometimes difficult to interpret the source of the intercellular material. However, it has been repeatedly shown that the neoplastic cells in the slower growing types produce fibroglia, elastin, and collagen.

In some of the fibrous types the histological appearance is so similar to the perineuromas of the acoustic nerve that that diagnosis has been returned from the examination of the stained section which was unaccompanied by other information. Nothing is more typical, however, than a typical meningioma with its whorls and psammoma bodies. Individual specimens may show every possible combination of the above types.

In addition to the above cellular and fibrous types we have come to recognize a third type in which the histological picture is that of a hemangioma.

We have encountered one spinal and two cranial meningiomas whose gross appearance was unquestionably that of the meningiomas described above.



Fig. IV. A-28-178. A cross section of the meningioma that histologically is an angioma. It is definitely encapsulated and to the naked eye is a typical meningioma.

The diagnosis from the gross examination was meningioma, and it was expected that the microscopic study would confirm this diagnosis and that the neoplasms would fall under a description similar to the above.

Much to our surprise, however, the histology of these neoplasms was angiomatous. There was a tendency to form blood spaces which were for the most part delicate capillary spaces, some of them containing blood cells. There was a delicate stroma binding these spaces together. It was felt that the histology of these specimens required the diagnosis of hemangioma.

The fact that here we have neoplasms that grossly are typical meningiomas, but which microscopically do not show the usual histology of meningiomas demands an explanation.

In order to do this the literature on the histogenesis of the nervous system was reviewed. It

blastic tendencies. Brault has remarked that "every connective-tissue cell is by tendency angioblastic. It is practically impossible in histology to separate the two terms: connective tissue and vascular tissue." Therefore, with the mesenchymal conception of the histogenesis of the envelopes of the nervous system it does not seem strange that certain of the meningiomas may show angiomatous tendencies.

The meningiomas under discussion are not merely meningiomas that are highly vascular. These neoplasms present to the naked eye the typical appearance of meningiomas but on histologic examination have the architectural features of hemangiomas.

CONCLUSION

The neoplasms arising from the meninges which have formerly been known as dural endotheliomas should be designated as meningiomas. The name meningioma may be further qualified by adding the term mesothelial, fibrous or angiomatous, depending on individual histologic characteristics.

A POST GRADUATE WEEK OF PHYSICAL THERAPY

Announcement is made of "A Post Graduate Week of Physical Therapy" in conjunction with the ninth annual scientific session of the American Congress of Physical Therapy, to be conducted September 8 to 12, inclusive, 1930, at the new Hotel Jefferson, St. Louis, Mo.

An intensive post graduate week of physical therapy is promised. Elaborate plans have been perfected for teaching, demonstrations and clinics. Every phase of physical therapy will be covered. The subjects will be general and specific and so varied as to appeal to both the general practitioner and the specialist.

While it is appreciated that a week is a rather short period for post graduate teaching, the systematic arrangement of the program makes it possible for the physician to attend only those sessions in which he is vitally interested. As has been the practice in the past, sectional gatherings will prevail in Medicine, Surgery, and Eye, Ear, Nose and Throat. Several of the afternoons and evenings will be given over to addresses by prominent guests. There will be symposia on "Education and Teaching of Physical Therapeutics" and on "The Relation of the Physician and the Technician in Office and Hospital Practice."

The preliminary program will be issued within a short time. Full information and details are contained in it. Send your name and address to:

Executive Secretary

AMERICAN CONGRESS OF PHYSICAL THERAPY

Suite 716, 30 N. Michigan Avenue
CHICAGO, ILL.

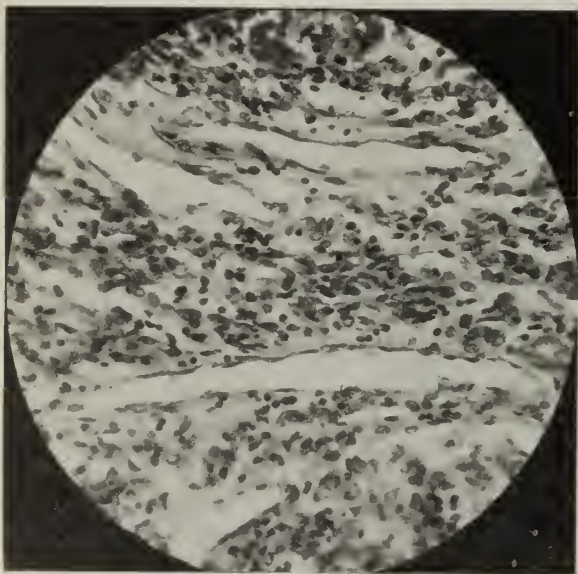


Fig. V. A-24-95. Showing the structure of an hemangioma. Diagnosis: Meningioma, angiomatus type.

is quite generally accepted that the meninges develop from the perimedullary mesenchyme. Recently, however, there have been some observations that seem to point to a neuro-ectodermal origin of the precursors of the leptomeninges. Some of this work has been rechecked by more recent workers and found to be unsubstantiated, the latest conclusion being that both the dura and leptomeninges arise from mesenchyme.

The fact that the meningeal envelopes are a derivation of the general mesenchyme and hence identical with connective tissue in many of their fundamental cellular reactions, explains nicely the trend of some of the meningioma to show angio-

STATE HEALTH COMMISSIONER'S PAGE



D. C. Stulman, M.D.



The diseases most prevalent during the past month have been smallpox, measles, scarlet fever and chickenpox in that order.

SMALLPOX

More cases of smallpox were reported than for the corresponding months of any of the seven previous years. Four hundred and twenty-seven cases were reported this year as compared with 129 for the same month of 1929. Two thousand five hundred and eighty-eight cases of smallpox have been reported during the first six months which is 675 more than were reported for the twelve months of 1929. Consistently the number of cases of smallpox reported each year since 1925 has been larger. The figures for the years 1925 to 1929 inclusive are respectively 645, 1,131, 1,279, 1,894, 1,913, and if cases continue to be reported in the same ratio during the next six months, the year 1930 will see close to 4,000 cases of smallpox.

MEASLES

The end of the triennial "measles cycle" appears to be in sight with only 360 cases reported for last month as compared with 1,561 for the month before. Beginning with November, 1929, when there were 265 cases the number rapidly went up until it reached the peak in February and March with 2,438 and 2,435 cases, respectively. Two thousand one hundred and fifty-four cases were reported for 1929, while 1,967 cases have been reported for the first six months of 1930. The last "measles year" was 1927, when 10,604 cases were reported. This is only 837 more than the number reported thus far during the present year.

SCARLET FEVER

Scarlet fever reached a new low mark for the month with the exception of 1925 when the number was 42. One hundred and eleven cases were reported. The next lowest number with the exception noted was 114. One thousand eight hundred and fifteen cases have been reported for the first six months of 1930 as compared with 3,353 for the corresponding period of 1929.

CHICKENPOX

Chickenpox dropped from 227 cases the previous month to 68 cases last month. During the six months of 1930, 1,306 cases have been reported as compared with 906 cases for the same period last year.

POLIOMYELITIS

Although no cases of poliomyelitis were reported last month, at the time of going to press the Department had information of at least one outbreak in Minnesota very close to the line between the states. Physicians are reminded that poliomyelitis make its appearance in August and that the greatest number of cases occurs in August, September and October. There are two accepted methods of treatment which appear to give satisfaction if given early in the disease; one is the serum as prepared by Rosenow, the other is convalescent serum. The latter may be procured in limited quantity from the Glomset Laboratory, Des Moines.

WORK OF THE EPIDEMIOLOGIST

Two field trips were made, one to Western Iowa for scarlet fever and one to Central Iowa to investigate a nuisance caused by the raising of dust by road builders in connection with a case of tuberculosis.

MEDICAL ECONOMICS OF THE SMALLPOX SITUATION

Much might be said in regard to the medical economics of the smallpox situation in Iowa. Are the practitioners of our state interesting themselves in the practice of preventive medicine? Could we not be of more service to the public in vaccinating the families of our practice against smallpox?

On July 14th announcement was made by C. M. Zimmerman, Chief Post Office Inspector for the Kansas District, that his Department was investigating complaints from persons in Missouri, Kansas and Nebraska, alleging that Dr. J. R. Brinkley, Goat Gland Specialist of Milford, Kansas, had been misusing the mails.

The JOURNAL of the Iowa State Medical Society

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"JAKE" PARALYSIS

During the past few months frequent reports of a new form of paralysis, designated as "Jake" paralysis, has been made in many southwestern states. The etiological factor in this condition appears to be the drinking of Jamaica ginger as a beverage. In an investigation conducted by William G. Shepherd and reported in Collier's for July 26, 1930, he states that "during the months of March and April it appeared, with its crippled victims, among the Negroes and poor white people of Mississippi; in that state it has ruined the lives of over 8,000 persons by official count of Federal prohibition officials. The Federal count of victims in Kentucky is about 1,000 cases; in Louisiana, 1,000 cases; in southern Tennessee, 800 cases; in Georgia, from 300 to 400 cases. Several hundred cases in all have appeared in the states of Massachusetts, Rhode Island and Connecticut. Former Federal Prohibition Commissioner Dr. James M. Doran estimates that there are now 15,000 cases in the country; half as many Americans paralyzed within the space of three months as were killed outright on the battlefields in the Great War."

Analysis of commercial Jamaica ginger has been conducted by Dr. A. R. Bliss, of the University of Tennessee, revealing the fact that besides ethyl alcohol the product commonly contained iso-propyl alcohol, a substance with similar physiologic action to ethyl alcohol, but twice as toxic as the latter. It is pointed out that the Jamaica ginger used for beverage purposes frequently contains as high as 83 per cent of alcohol.

Professor Mathews, of the University of Cincinnati, has suggested as a contributory factor in "Jake" paralysis a deficiency in vitamins B and

C. This observation has not as yet been confirmed by other observers.

The United States Public Health Service is at this time conducting animal experimentations and other studies relative to this subject. From their observations they would conclude at this time that the commercial product contains some toxic substance not found in other alcoholic beverages. It has been suggested that it is possible that in the preparation of Jamaica ginger certain poisonous plants were accidentally included. It is understood that in the West Indies there are two or three plants which closely resemble Jamaica ginger. These plants are quite poisonous and it is common knowledge that they produce in cattle symptoms similar to those of "Jake" paralysis in man. It is possible that in the collection of Jamaica ginger some of these plants are inadvertently included, which accounts for the impurities in the commercial product.

An investigation made by Peter Valaer, Jr., government chemist, of an average specimen of commercial Jamaica ginger showed the ingredients and percentages to be: Alcohol, 86 per cent; tricresylphosphate (creosote), 2.5 per cent; resin oil, 2 per cent; oleo resin of ginger, .5 per cent; castor oil, 3.5 per cent; water, 5.5 per cent.

While different investigators have not agreed as to the toxic principle contained in commercial Jamaica ginger they are all well agreed as to the symptomology. It would appear that in most of the cases observed there has been a peripheral neuritis involving the legs and feet chiefly, although in some cases the hands and forearms are affected to a lesser degree. A flaccid type of paralysis is present; there is a "steppage-gate;" there is no loss of position sense; there are minor sensory changes present; there are also noted changes in the light, touch, and pain sensations; there is no apparent interference with the cerebral functions. It appears to be an alcoholic type of neuritis. All of the muscles of an affected area are very weak.

The symptoms varied little in the several cases seen. The condition usually was first manifested as a soreness in the posterior portion of the leg, followed by stiffness, and finally paralysis. The onset of these symptoms following the ingestion of the suspected beverage varied from three days to three weeks.

Until such a time as this condition is more thoroughly understood it would seem that the best treatment would be that paralleling the usual management of alcoholic neuritis. With the thought that perhaps a deficiency in vitamins B and C may exist as a contributory factor a general diet especially rich in these vitamins should be added.

Kidney Symposium at the University of Minnesota

A round table discussion held in the dining room of the University Hospital in Minneapolis, on the afternoon of July 19, brought to a very successful conclusion a unique medical assemblage. Every day for nearly two weeks over two hundred doctors from across the sea, from Canada and from all parts of the United States had gathered in the comparatively cool amphitheater of the botany building, while the entire middle west was sweltering in the merciless rays of the sun. From eight o'clock in the morning until, at times, eleven o'clock at night, they listened to lectures and clinics, and the constant and often prolonged applause made by sweating hands clearly indicated that the audience found it very much worth while to remain in their seats through the heat. And well they might, for they were listening to the Kidney Symposium offered by the University of Minnesota as its summer post-graduate course in medicine. As participants in the program the University had secured men from abroad and from North America who have hewn their names on the tablets of kidney history by their original contributions to the anatomy, physiology and pathology of the human kidney.

The program met with continuous success. Lectures on embryology and anatomy of the mammalian kidneys were followed by papers on the physiology of the organs, and this phase of the subject was then concluded by a round table discussion. The clinical phases of the group of renal disorders usually known either as Bright's disease or as nephritis were presented in the form of lectures on the morbid anatomy, the morbid physiology and chemistry, as well as on the value and interpretation of the various blood and urinary tests employed in clinical medicine. Clinics were given by recognized leaders in medical diseases of the kidneys. There followed a thorough discussion of the closely allied subject of hypertension and a most illuminating presentation of the pathological findings and the clinical significance of the eyeground changes in nephritis and hypertension.

The Symposium was concluded by a discussion of the prognosis and clinical management of renal disease.

The entire program was of the highest order. Every participant was there on time and presented his material with authority, but though the whole was of such excellence, there were certain men and features that stood out:

The originator, Dr. Hilding Berglund, earned the lasting gratitude of the guests, not only for the talents he brought to the Symposium, but for his masterly handling of the program and his untiring solicitation for the welfare of all who attended. He managed his "circus" so well that no

one suspected the presence of the "trainer." That should have been enough of an accomplishment for any man, but not so for the indefatigable Swede. He personally saw to it that the most gracious and hospitable members of the medical faculty entertained the weary and lonesome men who had come from outside the city. In the middle of the Symposium a most

delightful relief from medicine and the heat was offered by a week-end excursion to the shores of Lake Superior and the northern woods. May Berglund live to originate still more symposia!

The visitors from afar earned the respect and deep admiration of their American audience. Dr. Paul Rehberg, a pupil of Krogh, and a non-medical man, impressed the listeners by his scientific enthusiasm and his thorough knowledge of the clinical phases which had relation to his particular subject, kidney physiology.

The name of Professor Vollhard is known to all American students of renal disease. For years he has been an inspiration to those attempting to solve renal riddles. His complete familiarity with all the published works on renal diseases was astounding, and when his initial timidity was overcome, he spoke English more fluently each day. The three European speakers who handled our language so dexterously made us Americans humble indeed, but neither Rehberg nor Vollhard could handle English with the ease and speed of

Announcement

This report of the Kidney Symposium held under the auspices of the University of Minnesota has been prepared by Dr. Daniel J. Glomset of Des Moines, upon special request. This article will serve as an introduction to a series of special articles written by Dr. Glomset for the JOURNAL dealing with many phases of Kidney Diseases. Watch for the first of these articles in the September issue.—

THE EDITOR.

Dr. Snapper from Amsterdam, a scientist of note and a brilliant clinician. The name, indeed, is an excellent indication of the man. His is a snappy intellect. His audience was with him from beginning to end and was begging for more when he was through.

Perhaps it is not in good taste to write such complimentary things about our neighbors, the Canadians, or our own compatriots, but the truth is that they all did excellently. We were especially proud of Professor Richards of Pennsylvania, for his brilliant presentation of kidney physiology. His unassuming manner and the terseness of his style took the audience by storm every time he rose to speak. Professor Longcope of Johns Hopkins, too, won a large number of new friends and endeared himself again to his old admirers by his modesty and breadth of medical knowledge. Dr. Friedenwald, a much younger Johns Hopkins man, astounded those of us who did not know him by his thorough knowledge of his field of work, the histology of the retinal changes in disease. Professor Carlson from Chicago, in opening the Symposium, did as those who knew him expected, stirred the minds of participants and audience to further scientific study. I cannot forego expressing my appreciation and gratitude to Wagener, of the Mayo Clinic, for the lucid manner in which he described the changes he had found in the retina in nephritis, arteriosclerosis and hypertension.

Last, but by no means least, a man of the Minnesota University faculty, Dr. E. T. Bell, made a perfectly marvelous presentation of the etiology and morbid anatomy of nephritis, nephrosis and hypertension.

The impressions which linger among all those who were privileged to attend the Symposium are first, gratitude to President Coffman and his Board of Regents for offering gratis such a wonderful intellectual treat; second, humbleness for our own lack of knowledge in this field and a desire to do better in the future; third, grateful appreciation of the charming hospitality of the Minnesota hosts; and lastly, a realization of the fact that the Medical School of the University of Minnesota has assumed rank among the great medical schools of our land.

BAKER INJUNCTION TO BE HEARD

In the JOURNAL for July attention was directed to the fact that the State of Iowa, on July 2nd, filed an amended and substituted petition in the Muscatine County District Court, charging Norman Baker, owner of the Baker Institute, with practicing medicine without a license. On July 16th, Judge D. V. Jackson overruled the motion of Baker's attorneys to strike the amended and

substituted petition which the state had filed on July 2nd. The Court gave the defendants five days to plead.

This amended petition, among other allegations, stated that the defendants were engaged in the practice of medicine and surgery in that they publicly professed to be physicians and surgeons, publicly proposed to assume the duties incident to medicine and surgery, and have prescribed and furnished medicine for human ailments and treated the same by surgery without being duly licensed by the state, as provided in the code. The motion made by Baker's attorneys to strike this petition is another step towards the hearing of testimony in the case.

On July 26th, Judge Jackson overruled a motion of the defendants to dismiss the case for a more specific statement of facts. The defendants asked the Court to require the state to make its petition more specific in regard to its allegations, setting forth the time and occasion when Baker and his associates are alleged to have violated the law. The Court, however, has ruled the defendants to answer and ordered the case set for hearing.

No testimony to date has been entered supporting or in defense of the charges filed in the petition. It is believed by those in close touch with this case that the State will be supported in its injunction action by evidence which will be brought out when the case is actually tried.

DR. BRINKLEY MAY LOSE LICENSE

Dr. John R. Brinkley, "Goat Gland Specialist," of Milford, Kansas, was summoned on July 19th to appear before the Licensing Board of Kansas to show reason why his license to practice medicine should not be revoked.

It is alleged that Dr. Brinkley during the past few years has practiced goat gland grafting for rejuvenation, advertising his practice over Radio Station KFKB. The Licensing Board will hear testimony in support of his methods from a number of Brinkley's patients. Reputable physicians will be called by the board to present evidence which they have accumulated relative to the results obtained.

Dr. Brinkley has alleged that the Royal University of Pavia, Italy, issued him a diploma for the practice of medicine and surgery. Investigation by the board indicates that such a diploma was issued but after investigating the work of Brinkley the university withdrew his diploma.

Following the action of the Federal Radio Commission in denying Brinkley's radio station a broadcasting license the case was appealed to the Court of Appeals of the District of Columbia.

The Court has issued an order restraining the Commission from removing Brinkley's station from the air until such a time as the Court can hear and review the evidence in the case. The Commission had refused to renew the station's license because prescriptions broadcast by Dr. Brinkley were considered "not in public interest." The Commission held that the station was operated primarily as a profit-making enterprise for Brinkley and his hospital.

OUR ADVERTISERS

Publishers soliciting commercial advertising have been brought to a realization that a high standard of ethics in advertising is not only demanded by readers but is likewise required by manufacturers of high grade merchandise. Many publishers today offer their readers a guarantee against any form of fraud or misrepresentation resulting through any firm advertising in their medium. Such a standard is none too high and can be established and maintained by any journal when such a program appears desirable.

It has been the established policy of the JOURNAL to accept advertisements only from reputable firms manufacturing or distributing products of known merit. We have adopted the same standard as that established by the American Medical Association for the JOURNAL. This policy means much to our readers and should be appreciated by every physician, since it assures him that an article advertised in our columns has been proved meritorious and the firm so advertised one with whom he can safely transact business. In return for this censorship we urge our readers to mention the JOURNAL in answering advertisements and to cooperate with us in using advertised products whenever possible. Our JOURNAL is made possible in a considerable measure by the financial support received from our advertisers and we urge our readers to reciprocate generously with these advertisers.

We would appreciate reports from our readers of any unfavorable dealings which they have had with a firm advertising in our JOURNAL, since such reports will assist us in maintaining the standards which we have established.

A RADIO CLEAN-UP

On July 23rd the Federal Radio Commission announced that thirty-one broadcasting stations were placed on probation and granted temporary licenses effective until October 31, 1930. In most instances the charges stated were for infractions of technical and legal provisions of the law.

In the case of Radio Station KTNT of Muscatine, Iowa, operated by Norman Baker, it was

disclosed that as a result of a private investigation of the Commission this station failed to operate in public interest by virtue of its sponsorship of alleged cancer cures broadcast from the station.

The stations on probation will be required to appear before the Commission and show reason why the station should be continued.

This action of the Radio Commission, if conscientiously executed, is a forward step in placing this public carrier of information on a satisfactory basis for the protection of the public and will go far towards stabilizing radio broadcasting. When, and only when, the radio is protected by a regular code similar to that governing the use of the mails, can we expect protection from those individuals who are willing to prostitute this medium of entertainment and education for personal gain.

CONFERENCE ON BONE TUMORS

Dr. Joseph C. Bloodgood, Director of the Surgical Pathological Laboratory of Johns Hopkins Hospital, Baltimore, Maryland, has announced a three day meeting dealing with the diagnosis and treatment of diseases and tumors of bone to be given in the ballroom of the Belvedere Hotel in Baltimore, on Monday, Tuesday and Wednesday, September 15th, 16th and 17th, 1930.

During the first day of the meeting the discussion will be devoted to the fundamental and essential knowledge of the benign and malignant lesions of bone, such as osteitis fibrosa, giant-cell tumors, osteomyelitis, sarcoma and so forth. On the second day the subject will be different diseases of single bones, such as the lower end of the radius, vertebrae and so forth. The third day will be reserved for the presentation of rare lesions of bone difficult to diagnose.

Since the ballroom capacity is limited to 800 only this number can be accommodated and those physicians desiring to attend this series of meetings should make application immediately with Miss Maude Walker, Secretary to Dr. Bloodgood, in care of the Surgical Pathological Laboratory, Johns Hopkins Hospital, Baltimore, Maryland. Any member of the medical profession interested in the diagnosis and treatment of lesions of bone is invited.

GOVERNMENT RADIUM

Dr. Howard A. Kelly, of Baltimore, Md., has recommended that the House of Representatives take favorable action on the bill to authorize the Bureau of Mines to manufacture one gram of radium for use in the United States Veterans' hospitals. Dr. Kelly claims that there are thousands of cases of cancer in this country which cannot be cured because of an insufficiency of radium. He stated that there are only twenty grams of radium in the United States.

Milestones in Iowa Public Health

A distinguished public health official visiting Iowa recently said, "Because of the county health unit law, the progressive attitude of the medical profession, the cooperative spirit of the various health agencies and the recent acquisition by Iowa of such men as Dr. Barnes of the State University Medical College and Dr. Coffey in the State Department of Health, Iowa is on the road to greater achievements in public health."

DR. E. R. COFFEY

*Cooperative Health Service
Iowa State Department of Health*

E. R. Coffey was born on December 31, 1896, at Kansas City, Missouri, where he spent the early part of his life. He entered the Kansas University Medical School, from which he received his degree in 1923. The next year he spent as an interne in the Kansas City General Hospital.

After having completed his internship, Dr. Coffey was commissioned in the United States Public Health Service, and has served in this connection up to and including the present time; and with the exception of one short detail in New York City, his efforts have been directed toward the interests of rural public health work. While engaged in this work, Dr. Coffey has had details in Missouri, Tennessee, Kentucky and Virginia.

Dr. Coffey comes to Iowa from Richmond, Virginia, having just finished one year's service as Director of Field Investigations of Malaria in the southern states.

On June 15, 1930, he was detailed to the Iowa State Department of Health for the purpose of building up in the counties of Iowa a more efficient and economical public health service by means of the organization of full time county health units in accordance with the permissive County Health Unit law passed by the last general assembly.

As director of Cooperative Health Work in the State of Iowa, Dr. Coffey hopes to amplify what is already being done in the state along public health lines. This is to be effected through the State Department of Health, by active cooperation especially with the department of Preventive Medicine and Hygiene, with the Extension Division of the University of Iowa, Iowa State College, the State Medical Society and other organizations interested in public health work.

His presence in Iowa may be taken as evidence that the United States Public Health Service recognizes that there is here great opportunity for advancement in rural public health because of the beneficial county unit law, and the statewide interest and cooperative spirit to be found among the various official, professional, educational and lay institutions and groups engaged in public health or medical work in Iowa.

DR. MILFORD E. BARNES

*Professor of Preventive Medicine and Hygiene
State University*

Milford Edwin Barnes was born at Columbus Junction, Iowa, and spent his early youth at the little town of Ainsworth, a short distance south of Iowa City. In 1905 he graduated from Monmouth College, Monmouth, Illinois, receiving the degree of Bachelor of Arts. For three years thereafter he taught science and English at Gordon Mission College, Rawal Pindi, India. During the time he spent in this work he took advantage of occasional opportunities to visit all of the large cities of India, and took a tramping trip through Kashmir and other Himalayan native states.

Returning to this country after spending some time in Europe and England, he entered Rush Medical College in 1910 and took his doctorate in medicine in 1914. The following two years were spent in internships at Cook County Hospital and St. Joseph's Hospital of Chicago, at the end of which he entered the foreign service division of the International Health Board of the Rockefeller Foundation and was assigned to Ceylon. Later in the same year he went to Java where he worked with the late S. T. Darling for some time in comparative studies of hookworm and malaria in the production of anemia. On the conclusion of these activities he was sent to Bangkok, where he spent first and last, six or seven years. During 1919 Dr. Barnes attended the annual session of the London School of Tropical Medicine. Returning to Siam he organized the Sanitary Division of the National Department of Health and became advisory director of health activities of the Siamese Red Cross Society. He secured the erection of a large leprosy hospital by the Red Cross Society, and obtained the agreement of the Siamese government to the complete reorganization of the National Medical College. He was also actively concerned in an outbreak of Bubonic plague in Northern Siam in these years, and in addition to his regular duties took an important part in the First Far Eastern Congress of Red Cross Societies. In 1923 Dr. Barnes returned to the United States to complete his technical studies and graduated from the Johns Hop-

kins School of Hygiene in 1925 with the degree of Doctor of Public Health.

Thereafter the Rockefeller Foundation located him in Singapore to be the director of the Board's activities in Straits Settlements and Siam. During the subsequent year and a half he organized sanitary work in Straits Settlements and supervised similar enterprises in Siam. He did a malaria survey and program for Ceylon, and a health program for Sarawak in North Borneo.

At the close of 1926 Dr. Barnes returned to the United States and taught in the Health Officers Training Station in Montgomery, Alabama. In 1927-28-29 he conducted a training station for health workers in Greenville, Darke County, Ohio. After leaving there he organized and conducted a training station for health workers in the State Department of Health of Michigan. In 1930 he accepted the Chair of Preventive Medicine and Hygiene in the State University of Iowa. During this same year he was the De Lamar Lecturer in Johns Hopkins University School of Hygiene and Public Health.

ARE PHYSICIANS SUCKERS?

It has often been alleged that widows and physicians comprise the preferred "sucker lists" which "slick" salesmen use in promoting questionable and fly-by-night stock investment schemes. Whether that be true of Iowa physicians or not, it is a safe guess that readers of the Journal do in the aggregate realize considerable losses each year from unwise investments. For this reason the Journal management has deemed it wise to admit to the advertising pages of the Journal certain bond and investment houses whose reputation and integrity are unquestioned.

The exercise of care in the selection of firms to be admitted to our advertising pages was the result of a deliberate effort to have such financial companies and advertisements meet the same type of test which we apply to those companies offering technical services to physicians. On that ground, as well as because of the fact that they are contributing to the support of the Journal, these investment houses deserve especial consideration on the part of the members of the Iowa State Medical Society.

Two Des Moines houses are now accepted by the Journal; the Ballard-Hassett Company, whose advertisement has been appearing on the back cover for the past several months, and the Victor J. Silliman Company, Inc., whose advertisement appears for the first time on advertising page xvii of this issue.

A NEW DENATURANT FOR ALCOHOL

A new nonpoisonous denaturant for industrial alcohol, more effective than any now in use, has been discovered by the technical division of the Prohibition Bureau, Dr. James M. Doran, prohibition commissioner, revealed recently, at a conference of industrial alcohol producers. The denaturant is a product

of petroleum, and Commissioner Doran explained that it made alcohol extremely difficult of conversion for drinking purposes. The producers, Dr. Doran said, had given him assurance they would cooperate in the use of the new denaturant.

NEW AND NON-OFFICIAL REMEDIES

Aces Laboratory, Inc.

Mercurochrome Suppositories Aces.

Cutter Laboratory

Diphtheria Toxoid-Cutter, 45 cc. vial.

Hoffman-LaRoche, Inc.

Synthetic Thyroxine

Ampules Synthetic Thyroxine-Roche, 1.1 cc.

Solution Synthetic Thyroxine-Roche

Tablets Synthetic Thyroxine-Roche, 1 mg.

Winthrop Chemical Co.

Mesurool

Ampules Emulsion Mesurool, 20 per cent, 1 cc.

Theocin

Tablets Theocin, 1½ grains.

CLINICS AT COOK COUNTY HOSPITAL

The officers of the Chicago Medical Society together with members of the staff of Cook County Hospital, will present their Summer Clinics, August 11 to 16 and August 18 to 22 respectively. These Clinics are the outgrowth of a program adopted in 1926 by the Chicago Medical Society at which time an invitation was extended to every licensed physician in Illinois to attend a short Clinic at the Cook County Hospital. Such interest greeted this innovation that the Clinic has been conducted each year. The regular fee of \$10.00 is charged to cover the expense of organizing the Clinics. An invitation is extended to all members in good standing of the American Medical Association and its component societies. Clinics in both medicine and surgery will be given daily, beginning at 8 o'clock and lasting until 5 o'clock in the afternoon. Full information may be secured by addressing N. S. Davis, III, Secretary of the Chicago Medical Society, 185 North Wabash Avenue, Chicago.

PROPOSED HEALTH CENTERS FOR NEW YORK

Plans for the erection in New York City, within the next four years, of sixteen new health centers, are being discussed by Health Commissioner Shirley W. Wynne and the Committee on Neighborhood Health Development. The result of these new health centers would be to "place health on the doorstep, so to speak, of every home in the city." New York City has been divided into new districts, and each health district now contains approximately a population of 200,000, so that the health authorities may keep closer watch of each district, obtain more definite information as to living conditions, sickness, and other data, and at the same time enable the Health districts. In order that each of the health districts may be made to function to full efficiency, the Commissioner decided that each should have a health center.

SOCIETY PROCEEDINGS

Buchanan County

The Buchanan County Medical Society met Friday, June 27, for its quarterly session. A noon luncheon was served at the Gedney Hotel, after which John H. Peck, M.D., addressed the group. The noon meeting was preceded and followed by a heart and lung clinic held at the Peoples' Hospital.

Cerro Gordo

The Cerro Gordo County Medical Society held its regular meeting Tuesday, July 15. The afternoon was spent in going over cases with Dr. J. Carl Painter of the Sunny Crest Sanatorium at Dubuque, who was representing the Iowa State Tuberculosis Association. A six-thirty dinner was served at the Eadmar Hotel, following which Dr. Painter presented cases and x-ray demonstrations of far advanced cases and demonstrated the marked improvement after years of treatment. We are very grateful to the Iowa Tuberculosis Association for putting on this program for us.

T. E. Davidson, M.D., Secretary

Davis County

Thursday, July 17, the Davis County Medical Society held its annual picnic and basket dinner at the Country Club in Bloomfield. This was the social event of the year and the physicians and their wives from several southern Iowa counties were guests of the local organization.

Fayette County

Dr. and Mrs. J. M. Smittle entertained the members of the Fayette County Medical Society at a six-thirty chicken dinner, Monday evening, July 7. Thirty-five members and guests were present. Dr. Lawrence M. Randall, of Rochester, Minnesota, presented a scientific paper.

Johnson County

The last meeting of the Johnson County Medical Society before the summer recess, was held Wednesday, July 2, at the home of Dr. and Mrs. George C. Albright. A picnic buffet luncheon was served, the hosts for the evening being Drs. H. L. Beye, J. D. Boyd, I. A. Rankin, C. W. Rutherford, Homer W. Scott, George H. Scanlon, Matt Ware, A. W. Bennett, F. L. Love, and George C. Albright. Although the meeting was largely social, W. M. Rohrbacher, M.D., spoke on the Use of Ultra Violet Ray in Vincent's Angina, and Harry R. Jenkinson, M.D., presented a case report. The discussions were opened by F. J. Rohner, M.D., and Frank R. Peterson, M.D., respectively. The next meeting of the society will be held in October.

Louisa County

Thursday, July 10, members of the Louisa County Medical Society met in Morning Sun, and M. W. Lilly, M.D., of Grandview, gave a talk on Germs.

Austin Flint-Cedar Valley Medical Society

Members of one of the largest and most active district societies convened in an all day session Wednesday, July 16, when the Austin Flint-Cedar Valley Medical Society met in Decorah.

The morning program started at ten o'clock and the following papers were presented: Eclampsia, L. C. Kuhn, M.D., Decorah; Common Causes of Flat Feet in Children, Fred L. Knowles, M.D., Fort Dodge; Four Cases of Jaundice with Necropsy Reports, F. P. McNamara, M.D., Dubuque; and Practical Points in Diagnosis of Pernicious Anemia, F. J. Rohner, M.D., Iowa City.

The afternoon program consisted of a business session with election of officers; president's address, Our Principles of Medical Ethics, Clarence M. Wray, M.D., Iowa Falls; a movie film of intestinal movements, J. T. McClintock, M.D., Iowa City; Reflex Gastric Pain, F. M. Smith, M.D., Iowa City; Intracranial Hemorrhage of New Born, E. E. Magee, M.D., Waterloo; Clinical-Pathological Discussion of Nephritis, E. G. Bannick, M.D., Rochester, Minnesota; and Physical Therapy in Relation to Medicine and Surgery, H. D. Holman, M.D., Mason City. The session closed with a six-thirty banquet held at the Winneshiek Hotel.

Newly elected officers of the society include: Dr. W. W. Bowen of Fort Dodge, president, and Dr. B. E. Ensley of Shell Rock, vice president. Dr. M. N. Gernsey of Waverly, secretary, and Dr. W. E. Long of Mason City, treasurer, were re-elected to those offices.

INTERESTING NEWS

In Brief

Announcement has been made that the St. Joseph's Hospital at Webster City, was recently closed with the retirement of the Sisters of Mercy. The Hospital will be reopened as a County Hospital while construction work on the first unit of a new County Hospital is in progress. St. Joseph's Hospital has been operated for the past twenty-five years by the Sisters of Mercy.

A bill sponsored by Senator Ransdell, of Louisiana, which has recently been approved by Congress and endorsed by Secretary Mellon, will, if signed by the President, become a law establishing a National Institute of Health. Under this bill the Hygienic Laboratory is made the nucleus of the new institute. The work of the institute will be in the field of conservation of health.

While the Federal Radio Commission is giving serious thought to the closing of Radio Station KTNT, Muscatine, Iowa, the city council of Muscatine has petitioned the commission on the basis of public interests and necessity to grant greater wattage to this station. In their resolution they state "that this council does hereby heartily endorse radio station KTNT."

The Mary Greeley Hospital at Ames, has recently received a bequest of \$25,000 from the estate of Mr. and Mrs. Waldo Stultz. Any residue remaining after specific bequests and administrations are allowed from the \$58,000 estate, under the will of Mr. Stultz will be paid to the Iowa Methodist Hospital of Des Moines.

Announcement has been made that a petition has recently been circulated in Fort Madison requesting Norman Baker, owner and operator of the Muscatine Clinic, who is now under injunction proceedings for his alleged activities in cancer treatment, to move his institute to Fort Madison.

A recent opinion rendered by Attorney General Fletcher indicates that county boards of supervisors cannot contract with osteopaths or chiropractors for the medical care of the poor since the law specifically states that such contracts must be made with medical men and dentists.

James Cubbage, private detective for Norman Baker, operator of radio station KTNT, and the Muscatine Clinic, is at liberty on \$10,000 bond, charged with extortion. It is alleged that Cubbage accepted \$50.00 in marked money from a patient of the Institute to protect her from arrest.

The Algona city council recently decided to levy a tax upon the equipment used by physicians, dentists and lawyers. The assessments range from \$360.00 to more than \$1,000.00. The matter has been protested and the authority of the council questioned.

The Iowa Methodist Hospital of Des Moines has recently authorized a \$125,000 bond issue, for the purpose of retiring floating indebtedness and to provide the necessary improvements to enable the hospital to extend its charitable work.

During Commencement Week at Iowa City, Dr. E. P. Case, of Oakland, California, the only surviving member of the medical class of 1875 of the University of Iowa, attended the exercises. Dr. Case is still in active practice.

Competition is apparently becoming keen in quack cancer treatment. Our attention has recently been directed to a new institute, known as the Ft. Nichols Sanitarium, in Savannah, Mo.

During the second week in July, Attorney General John Fletcher ruled that chiropractors could not pose as "foot correctionists," but rather that such display must bear the word "chiropractic."

Dr. H. W. Wiley, father of the Pure Food Move-

ment and co-author of our present food laws died on June 30th, age eighty-six.

PERSONAL MENTION

Dr. George Younkin, formerly of Martinsburg, has located in Riverside, and will continue in the practice of medicine there.

Dr. L. D. Jay, Waverly, spoke to the members of the Lutheran Brotherhood at their monthly meeting, Monday, July 8. Dr. Jay presented a review of his recent European trip, dealing especially with the subject of hospitals and medical institutions in Scotland.

Dr. W. H. Johnston, formerly of Muscatine, is leaving the Washington University, St. Louis, Missouri, where for the past year he has been an instructor in otolaryngology, and is moving his family to Santa Barbara, California. Dr. Johnston has been selected as a member of the Clinic of Medical Arts, an associated group of eye, ear, nose and throat specialists.

Dr. W. E. McCrary of Lake City, has left with his family for a trip to New York, where the doctor will take a month's special work in the New York Postgraduate School's surgical department.

Dr. W. S. Binford, who has been engaged in the practice of medicine for several years at Dixon, has located at Davenport. He is moving his family there and will open an office at 506 Kahl Building.

Dr. and Mrs. C. V. Lawton and family of Grinnell arrived home July 18, after a month's trip through the east and northeastern part of the country. While in Boston, Dr. Lawton attended a clinic of the Massachusetts Eye and Ear Infirmary. From there, they went to Detroit, where the doctor attended the meeting of the American Medical Association.

Dr. and Mrs. H. G. Cleary, recently of Iowa City, have moved to New Market, where Dr. Cleary will engage in the practice of medicine.

Dr. Harold A. Spilman of Ottumwa, has been suffering for over a month from a case of severe septic poisoning, the infection being incurred in the operating room. However, according to latest reports he is now recovering.

Dr. C. V. Edwards, formerly of Council Bluffs, is returning to that city from Glenwood, where he has been practicing for the past two years. He is to be associated with Dr. Phillip Cogley and Dr. A. H. Hubenka, and will give special attention to obstetrics and infant feeding.

Dr. David Gross has purchased the office equipment of Dr. Edwards and is moving to Glenwood from Omaha, where he has been a member of the staff of St. Joseph's Hospital.

Dr. and Mrs. Johnston H. Kerr and son, Harper, left Akron recently for an extended western trip. Their itinerary includes a trip through the Black Hills, Yellowstone National Park, Yosemite National Park and Sequoia National Park. They expect to return about the first of September.

Dr. F. L. Adams of Wesley announces the association of his son, Dr. James L. Adams, in the practice

of medicine. Dr. James L. Adams is a graduate of the State University of Iowa College of Medicine, and has just recently returned from Youngstown, Ohio, where he completed his internship.

Dr. John Liken, a recent graduate of Creighton University College of Medicine, has located in Vil-lisca.

Dr. Lawrence E. Pierson, formerly of Sioux City, and now assistant urologist in Rush Medical College, has purchased the equipment and will take over the practice of the late Dr. Raymond L. Latchem in Sioux City.

Dr. and Mrs. E. S. Korfmacher are moving to Grinnell, where Dr. Korfmacher has purchased the office equipment of the late Dr. E. S. Evans. The doctor is a graduate of the Northwestern University School of Medicine and completed his internship at the Methodist Hospital in Des Moines.

Dr. Wendell Crane, son of Dr. and Mrs. G. H. Crane of Holstein, has returned home from St. Paul, where he has just completed his internship. Dr. Crane is a graduate of the State University College of Medicine and comes to Holstein to take care of his father's practice, as the elder Dr. Crane is still confined to his bed from illness of a serious nature.

Dr. Charles E. Wallace of New Sharon, who was taken to Mercy Hospital recently for a major operation, was slowly improving, according to newspaper reports.

Dr. C. L. Heald of Sigourney has recently opened a hospital there, to be called the Sigourney Hospital.

Dr. D. C. Werts, a recent graduate of the State University College of Medicine, has located at 414 Southern Surety Building, Des Moines. Dr. Werts completed his internship at the Gillette State Hospital in St. Paul. Associated with him will be Dr. Joseph G. Kruml, a graduate of the Creighton University School of Medicine, who recently finished his internship at Mercy Hospital, Des Moines.

Drs. W. E. Ash and Gerald V. Caughlan of Council Bluffs are newly appointed members of the lecture and instructing staffs of Creighton University School of Medicine. Dr. Ash has been named lecturer on nervous and mental diseases, Dr. Caughlan, lecturer on medical economics and Dr. Isaac Sternhill, instructor in pediatrics. This is Dr. Sternhill's third year on the staff.

Dr. A. L. Hageboeck was re-elected president and Dr. Kuno H. Struck was named secretary of the board of trustees of the Davenport Municipal Art Gallery, Tuesday, July 8, at the annual election.

Dr. Floyd A. Springer, formerly of the Newton Clinic, has located in Grimes, taking over the practice of Dr. Thomas L. Ward.

Dr. J. W. Benadom, a resident of Iowa for the greater part of the time since 1846, celebrated his eighty-seventh birthday anniversary on July 5th. Dr. Benadom is in active practice.

MARRIAGES

Dr. Samuel D. Porter, who has recently located in Grinnell, was married in Omaha Monday, June 23,

to Miss Betty Davis of Omaha. Dr. Porter and his bride are taking an eastern honeymoon trip, visiting Baltimore, New York, and Montreal, and will be at home in Grinnell after August 1.

Miss Margaret Jenkins, daughter of Dr. and Mrs. G. A. Jenkins of Albia, and Dr. D. O. Bovenmyer of Iowa City, son of Mr. and Mrs. Samuel Bovenmyer of Toledo, were married Saturday, June 28, at the home of the bride's parents in Albia. Dr. Bovenmyer is a member of the staff in the department of ophthalmology at the State University Hospital. After a month's wedding trip, Dr. and Mrs. Bovenmyer will be at home in Iowa City.

Saturday, June 28, was the date of another wedding, when Miss Florence Semmons, of Swisher, became the bride of Dr. M. D. Gardner of Iowa City. The ceremony took place at the home of the bride's parents, Mr. and Mrs. N. E. Semmons, near Swisher. Dr. Gardner is a graduate of the State University College of Medicine and begins his second year of internship in surgery next year.

Miss Ellen Brady, daughter of Mr. and Mrs. Hugh Brady, of Keswick, was married to Dr. J. Lyman Doyle, son of Mr. and Mrs. William Doyle of Parnell, at the home of the bride's parents, Monday, June 30. Immediately after the ceremony Dr. and Mrs. Doyle left on a short trip after which they will be at home in Keota, where Dr. Doyle has just recently established an office.

Wednesday, July 9, Miss Decla Mary Wollenweber was married to Dr. John Davis Fuller at the First Congregational church of Keokuk. This marriage unites two prominent Keokuk families. Miss Wollenweber is the daughter of Dr. and Mrs. E. G. Wollenweber and Dr. Fuller is the son of Dr. and Mrs. Frank M. Fuller. After graduating in 1929 from the State University of Iowa College of Medicine, Dr. Fuller spent a year's internship at the Strong Memorial Hospital at Rochester, New York. As soon as the honeymoon is over he will take up the duties of assistant pediatrician at the Mary Imogene Bassett Hospital, Cooperstown, New York.

The marriage of Miss Louis Plaister to Dr. John Shrader, both of Fort Dodge, took place Thursday afternoon, July 17, at the home of the bride's parents in Fort Dodge. Immediately after the ceremony the couple left for a few days and on their return will be at home in the Warden apartments.

DEATH NOTICES

Ayres, Edward C., of Lorimor, died July 14 at the age of sixty-four; graduated in 1894 from the State University of Iowa College of Medicine. He had been a member of the Union County Medical Society.

Beyer, Anton John, of Carroll, died July 10 at the age of sixty-two as the result of an attack of angina pectoris; graduated in 1900 from the Wisconsin College of Physicians and Surgeons, Milwaukee. He had been a member of the Carroll County Medical Society.

Kirkendall, Edward E., of Burlington, died July 15 at the age of seventy-one as the result of an automobile accident; graduated in 1885 from the State University of Iowa College of Medicine. At the time of his death he was a member of the Des Moines County Medical Society.

Warren, Alexis M., formerly of Sioux City, died in Bellingham, Washington, July 4, at the age of fifty-one as the result of purpura hemorrhagica; graduated in 1902 from the Sioux City College of Medicine. He was a son of Dr. J. N. Warren, who was president of the Iowa State Medical Society in 1918, and had been a member of the Woodbury County and Iowa State Medical Society for eighteen years.

Whitney, Jay P., of Vinton, died July 17 at the age of sixty-eight as the result of a cerebral hemorrhage; graduated in 1883 from Rush Medical College. At the time of his death he was a member of the Benton County Medical Society.

SECRETARY OF WEBSTER COUNTY MEDICAL SOCIETY MARRIES

The wedding of Miss Louise Plaister, daughter of Mr. and Mrs. J. M. Plaister of Fort Dodge, and Dr. John C. Shrader, who is secretary of the Webster County Medical Society, took place Thursday, July 17, at the home of the bride's parents in Fort Dodge.

Although it was generally known that the young couple was engaged, the wedding itself came as a surprise. Close friends of the young people had been informed that the date of the wedding was several months away. Immediately after the ceremony, Dr. and Mrs. Shrader left for a short motor trip, as they plan to take a longer trip this fall.

Both Dr. and Mrs. Shrader are well known in Fort Dodge where they have many friends and are active socially. Mrs. Shrader is a great-granddaughter of the late Judge Meservey, one of the pioneer settlers of the community. Dr. Shrader has been in Fort Dodge three years, coming from Atlanta, Georgia, where he had practiced for one year, and Boston, Massachusetts, where he had practiced for two years. He is a graduate of the State University College of Medicine, and served his internship in the hospitals there.

AMBULATORY PROCTOLOGY INTERESTS JOURNAL READERS

Pleasing evidence that the Journal is being read, not only in Iowa but throughout the United States, is at hand through the report from Dr. Guy B. Anderson of Ackley, author of "Symptoms of Some Rectal Conditions and Their Treatment by Ambulatory Methods" in the June issue, that he has had letters of inquiry from the four corners of the country.

As a result of the numerous inquiries and requests, Dr. Anderson is contemplating the conduct of a clinic in ambulatory proctology, to be held in Ackley some time during the month of October, and is making a formal announcement to that effect on advertising page v of this issue.

MENTAL HYGIENE CLINIC PLANNED FOR DES MOINES

At a meeting of social workers, city officials and physicians held in Des Moines July 11th, Dr. Andrew H. Woods, Director of the Psychopathic Hospital in Iowa City, spoke of the need for a mental hygiene clinic in a city the size of Des Moines, referred to similar work being successfully done in other parts of the United States and outlined methods for the operation of such an institution in Des Moines.

At the end of the discussion, Dr. A. D. McKinley of the Des Moines Health Center, made a motion for the appointment of a working committee to develop definite plans for the project. The motion was adopted, as was also a previous one by Dr. H. B. Henry which provided for the formation of a mental hygiene society in Des Moines.

THE COCKTAIL

The Licensing Commission, of London, England, is receiving evidence from some of the most prominent medical men of the Kingdom on the effect of alcohol on the human system. Their testimony on the cocktail seems at times to differ widely. Sir George Newman, chief medical officer of the Department of Health, is outspoken in his condemnation of the cocktail. His opinion is based on the grounds that an "unnatural" mixture of liquors, usually taken on an empty stomach, eventually destroys the appetite which it seeks to induce. Dr. Henry Dale, director of the National Institute of Medical Research, hesitates to disapprove the concoction. He says it might give an appetite to a man laboring under a mental tension and thus help him enjoy his meal.

U. S. PHARMACOLOGIST WINS EBERT AWARD

Marvin R. Thompson, assistant pharmacologist of the Food and Drug Administration, U. S. Department of Agriculture, is the winner of the Ebert medal awarded by the American Pharmaceutical Association. The prize goes to the author who at the annual meeting of the Association presents the paper "contributing most to the science of pharmacy." Mr. Thompson, who is 24 years old, is the youngest man ever to receive the Ebert award.

Albert E. Ebert, who was a noted educator and research worker in the field of pharmacy, many years ago endowed the prize as an annual reward for meritorious work in pharmacy. Mr. Thompson's winning paper was one of 85 presented before the Association last year. His subject was, "The Pharmacology of Ergot" and he reported work he did in the standardization of ergot for strength, quality and purity in connection with regulatory work of the Food and Drug Administration.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

DR. WILLIAM JEPSON, Sioux City

DR. FRANK M. FULLER, Keokuk

DR. ARTHUR D. WOODS, State Center

DR. WALTER L. BIERRING, Des Moines

DR. NORMAN F. MILLER, Iowa City

The Practice of Medicine in Iowa in Early Days and After 1870

D. S. FAIRCHILD, M.D.*

PART II

Due to the fact that Iowa contained only small towns in 1870, it may be fairly assumed that the physicians of the state were engaged in the routine practice of the preceding fifty years; they were what is called general practitioners of exactly the kind found in New England and the eastern states generally. There were exceptional instances, as in the case of Dr. John Bell of Wapello and Dr. Whinney of Fort Madison, and exceptional men in the great centers of population as Dr. Mott of New York and Dr. Oliver Wendell Holmes of Massachusetts.

When Dr. McCullough's committee began to collect data, certain questions were submitted characteristic of the practice of medicine of 1870. Much stress was placed on conditions of climate and soil in producing disease. Another point of inquiry related to infectious and contagious diseases which were common and very often fatal, as in Clinton in 1875 when 98 cases of diphtheria occurred, with 48 deaths. One disease was always with us, with a considerable mortality—typhoid fever, which was reasonably expected in every community. As a physician once said near the end of the typhoid period, in bewailing the decreasing income of physicians, that he formerly looked upon the typhoid fever period of September, October and November for his winter supplies.

Typhoid fever for many years, with malaria, were regarded as the prevalent autumn diseases. Prior to 1870, and for several years after, the cause of these diseases was unknown, but were in some way associated with the soil, air, sewer gas, etc.; the general cause was entirely unknown, although there was a belief in contagion in typhoid fever. On account of the close relation between

typhoid fever and malaria in their prevalence, a hyphenated term was used and for many years we had a form of typhoid fever known as typho-malarial.

Another form of infectious disease frequently prevailed, of great danger and often accompanied with a high degree of mortality—diphtheria. The lack of knowledge of the essential cause of these and other germ producing diseases, led the practitioner to use a great variety of antiseptic remedies now seldom recognized, particularly in the diseases in which they were once used with faith.

It is difficult to say when it became known that these infectious diseases were fully determined. Louis Pasteur, through his discoveries, laid the foundation for the germ theory of disease; on this foundation numerous investigators built.

As regards Iowa, we have rather definite information as to diphtheria. Dr. Walter L. Biering, of the Iowa State University, while pursuing graduate studies in Paris, became familiar with the investigations being pursued there, brought some material to this country and pursued studies at Iowa City. He produced the first diphtheria anti-toxin in Iowa. The result of these studies was presented before the Iowa State Medical Society at Creston at the 1895 session.

We do not recall any special contribution from Iowa as to the cause and treatment of typhoid or malarial fever. Iowa simply followed the methods of treatment generally employed by the profession everywhere, often extravagant in drugs, until the morphology of the bacillus and natural history of the disease had been worked out. The short period of time following the discovery of the influence of micro-organisms in the producing of disease is evidence of the activity of medical research workers. For many years a great

*Deceased.

variety of antiseptic agents were introduced into the stomach, in the belief that these antiseptics destroyed the micro-organisms and thus shortened the course of the disease. It seems none the less strange that a select committee of the State Medical Society fifty-four years ago should submit as one of the fundamental questions for a history of medicine in Iowa, the following question:

"What effect, if any, has cultivation of soil upon disease?" But such was the position half a century ago.

Following the medical history, a few men stand out prominently not as discoverers, but as promoters of welfare institutions; probably the most prominent of whom was Dr. W. S. Robertson of Muscatine. He was the founder of the Institution for the Feeble-Minded at Glenwood, contributed greatly to the passage of the bill creating the Iowa State Board of Health and was its first president, and as a member of the state senate did much to secure legislation in aiding state welfare institutions. The great merit of Dr. Robertson's work was its disinterested character and freedom from personal advantage.

Dr. W. F. Peck, a brilliant Davenport man, was the founder of the medical department of the Iowa State University. It is true also that the important aid of Judge Dillon and John P. Irish was given. There are many other minor contributions by medical practitioners in Iowa subsequent to 1870, but mostly of a local character and belong to the history of counties and cities.

As already stated, the great body of the Iowa profession was, at the time referred to, engaged in a routine, general practice. There was a tendency on the part of the Iowa physicians to visit the older and larger cities of the east to observe and gather additional knowledge from men of greater opportunities and facilities to advance in the practice of medicine. The practice of medicine in Iowa up to recent date, in cities as well as country was individualistic. Hospitals, except in the older communities, were not important factors in the practice of medicine, which was mostly carried on from house to house. Even when it was fairly well known that typhoid fever and other forms of infectious diseases were of germ origin and the cases treated at home, was there any serious thought of a laboratory diagnosis beyond a urinalysis. The advent of the hospital led to the hospital technician. It is true that private laboratories were organized in many cities which anticipated the more efficient hospital service. Who first introduced laboratory methods in the diagnosis in Iowa, it is quite impossible to say. The general hospital in comparatively recent days is the logical product of the clinical laboratory.

The physician of fifty years ago had nothing but his intellectual understanding to guide him. Fifty years ago the fever thermometer was a crude affair and its revelations not well understood. It was, however, regarded as a valuable means of following the course of a typhoid case.

In our first volume relating to medical affairs in Iowa we consider a period of fifty years—from 1820 to 1870. This was a period of settlement and organization. The State Medical Society had been organized (1850) and a few county societies in the more populous river counties, but medical education had made but little progress and the building of hospitals reserved for a future time. There were no laws regulating the practice of medicine and the question of irregular practice was no more acute than it is today. The lack of education is shown by the number of doctors practicing on one course of medical lectures; often on the basis of service as hospital steward in the armies of the Civil War.

We have a statement of the medical practitioners of twenty-three of the oldest and most populous counties collected in 1875 from reliable sources.

OBITUARIES

RAYMOND L. LACHEM, M.D.

On June 22nd, the medical profession of Sioux City was saddened by the untimely passing of one of its younger and most promising members, Raymond L. Latchem. Graduating from Rush Medical College in 1911, he spent several years in country practice, gained some army experience and then spent four years at the Mayo Foundation, improving himself in his chosen specialty of genito-urinary surgery. Confining himself to this branch he did pioneer work establishing his specialty in the community and as a result each succeeding year his especial ability was better recognized.

He was a member of the State Society, the American Urological Association, and other special groups, as well as being a member of the staff of the Lutheran and of St. Joseph's hospitals of Sioux City. He served as president of the Lutheran Staff during 1929.

A true physician beloved by his patients, a scientific man admired by his colleagues, and a joyous spirit missed by his friends, Doctor Latchem leaves an unfilled place in the local group. His wife and one son survive.

R. N. Larimer, M.D.

NEW SQUIBB ANTISEPTIC

E. R. Squibb & Sons, manufacturers of pharmaceutical products, announced recently a new antiseptic with many revolutionary features, named Di-Phen. Clinical authorities have tested the new antiseptic and, it is said, declare it has a number

of advantages that hospitals and physicians have been seeking for years.

Di-Phen, according to Squibb executives, is non-poisonous to persons even when swallowed, yet in full strength it kills germs instantly on contact, being three times as strong as carbolic acid. It has a phenol coefficient of 3.0. It does not injure fabrics or instruments and does not stain agate or metal utensils, and is noncorrosive.

Furthermore it does not have the characteristic disagreeable odor of phenols and cresols and is highly endorsed for personal hygiene when used in proper dilutions. It has been tested many times in the last six months against both typhoid and staphylococcus aureus by standard methods.

In addition to the 10-gallon size for hospital use, Di-Phen will be marketed for household use in 3-ounce and 12-ounce bottles.

UNITED STATES CIVIL SERVICE EXAMINATION

The United States Civil Service Commission announces the following open competitive examination:

Senior Medical Officer (Psychiatry)

Applications for senior medical officer (psychiatry) must be on file with the Civil Service Commission at Washington, D. C., not later than August 27, 1930.

The examination is to fill a vacancy in the United States Public Health Service for duty at the United States Penitentiary, Leavenworth, Kansas, and vacancies occurring in positions requiring similar qualifications throughout the United States.

The entrance salaries range from \$4,600 to \$5,200 a year. Higher-salaried positions are filled through promotion.

The duties are, under the administrative supervision of the Chief Medical Officer, to have charge of the psychiatric service of the Federal prison, the duties involving the psychiatric classification of prisoners incident to admission, parole, and discharge, the care and treatment of mental patients, the instruction of subordinate officers and employees, expert consultation, and the performance of related duties as assigned.

Competitors will not be required to report for written examination at any place, but will be rated on their education, training, and experience.

Full information may be obtained from the United States Civil Service Commission at Washington, D. C., or the Secretary of the United States Civil Service Board of Examiners at the post office or custom house in any city.

LECTURES AND ROUND TABLE IN CARDIOLOGY

Under the William H. Miner Foundation the Physicians Hospital of Plattsburgh, New York, has announced a series of invitation lectures to be delivered in connection with the summer course in Cardio-Nephritis for senior medical students, beginning

July 9th and continuing through August 27th. Any physician finding it convenient to be in Plattsburgh during this time will profit by attending this series of lectures.

On August 22nd and 23rd the Second Annual Round Table, presenting discussions of the physiology and clinical pathology of the heart, will be presented for undergraduates in medicine. A special display will be furnished by the Executive Secretary of the American Heart Association, Dr. I. C. Riggins.

The Beaumont Lecture will be delivered by Dr. Carl Wiggers of Western Reserve University on the subject of The Physiological Meaning of Common Clinical Signs and Symptoms in Cardio-vascular Disease.

DR. BILLINGS ENDOWS FELLOWSHIP AT RUSH

Dr. Frank Billings, who for many years occupied the Chair of Professor of Medicine and Dean of the Faculty of Rush Medical College, recently announced the creation of a fellowship to be named in honor of Doctors Edwin R. Le Count, professor of pathology; Ernest E. Irons, dean and professor of medicine, and Wilber E. Post, and Rollin T. Woodyatt, clinical professors of medicine. This announcement was made at the annual dinner of the faculty and alumni of Rush Medical College of the University of Chicago, which was attended by about 400 persons.

THE SCHOOL OF MEDICINE, DUKE UNIVERSITY

It has recently been announced by W. P. Fow of Duke University, that the General Education Board of New York has authorized grants to the Duke University School of Medicine totaling \$300,000 and running through a period of five years. A newly constructed plant will be situated on the campus which will be architecturally and technically equipped with everything necessary to make it one of the country's leading institutions of the kind. The school will be opened in October. The faculty already numbers sixty-seven members. On October 1st, first and third year students chosen on a rigidly selective basis will be admitted. One of the distinctive features of the institution will be the four quarter session idea.

COTTONSEED MEAL IN PELLAGRA TREATMENT

Recent experiments conducted by the United States Department of Agriculture in conjunction with the National Cottonseed Products Association indicate that cottonseed meal, commonly used as a cattle feed, possesses a large amount of vitamin G, the anti-pellagra vitamin, and is at this time the cheapest source of this vitamin. Cottonseed meal ranks second only to yeast in its vitamin B and G content, and since the expense of conducting pellagra treatment and prevention in the poorer communities has in the past handicapped the work, this discovery will no doubt prove of inestimable value in the treatment of this condition. The mainstay of the treatment in the past has been bakers' yeast, lean meat, fish, eggs, and milk.

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

PHYSICAL DIAGNOSIS—By Richard C. Cabot, M.D.—Massachusetts General Hospital, Boston, May, 1930.—Tenth Edition, revised and enlarged, with six plates and 279 figures in the text.—(The more important new matter introduced relates to coronary disease, electrocardiography, cancer of the lung, cardiac asthma, toxic hepatitis and encephalitis lethargica.)—Publishers, William Wood & Company, New York.—Price, \$5.00, net.

INFANT NUTRITION—By Williams McKim Marriott, B.S., M.D.—Illustrated—Price, \$5.50—C. V. Mosby Company, St. Louis.

RADIUM IN GENERAL PRACTICE—By A. James Larkin, B. Sc., M.D., D. N. B.—Illustrated—Paul B. Hoeber, Inc., New York. Price, \$6.00.

TRAUMA, DISEASE, COMPENSATION—By A. J. Fraser, M. D.—Price, \$6.50, Net—Philadelphia, F. A. Davis Company Publishers, 1930.

NORMAL FACTS IN DIAGNOSIS—By M. Coleman Harris, M. D. and Benjamin Finesilver, M. D.—Price, \$2.50, Net—Philadelphia, F. A. Davis Company Publishers, 1930.

PHYSIOLOGY AND BIOCHEMISTRY IN MODERN MEDICINE—By J. J. R. MacLeod, M.D., LL.D., D.Sc., F.R.S., assisted by Roy G. Pearce, A. C. Redfield, N. B. Taylor, and J. M. D. Olmstead, and by others—Sixth Edition with 295 illustrations, including 9 plates in colors—Price, \$11.00—C. V. Mosby Company, St. Louis.

CLINICAL FEATURES OF HEART DISEASE—By Leroy Crummer, M.D.—Second Edition, revised and enlarged—Price, \$4.00—Paul B. Hoeber Company, New York City.

CERTIFIED MILK CONFERENCES—Held in 1929 by American Association of Medical Milk Commissions, etc.—American Association of Medical Milk Commissions, 360 Park Place, Brooklyn, New York.

ALLERGIC DISEASES—By Ray M. Balyeat, M.A., M.D., F.A.C.S.—Illustrated with 87 engravings including four in colors.—Third Edition, revised and enlarged, as Their Diagnosis and Treatment.—Price, \$5.00, net—F. A. Davis Company, Philadelphia.

NEW AND NONOFFICIAL REMEDIES—Containing Descriptions of the Articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1930. Price \$1.50. American Medical Association, Chicago, Illinois.

MANUAL OF THE DISEASES OF THE EYE—For Students and General Practitioners—By Charles H. May, M.D.—Thirteenth Edition, Revised.—With 374 original illustrations, including 23 plates, with 73 colored figures.—William Wood and Company, New York, 1930.—Price, \$4.00, net.

SURGICAL CLINICS OF NORTH AMERICA—Volume 10, No. 3. (New York Number—June, 1930.)—Per Clinic Year—Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London. W. B. Saunders Company.

BOOK REVIEWS

SURGICAL DIAGNOSIS

Volume III and separate index volume, completing the new work by 42 American authors. Edited by Evarts Ambrose Graham, M.D., Professor of Surgery, Washington University Medical School. Three octavo volumes, totaling 2750 pages, containing 1250 illustrations, and separate index volume. Philadelphia and London. W. B. Saunders Company, 1930. Cloth, \$35.00 a set.

Volume III of this tremendously important work on Surgical Diagnosis, together with the general index are now ready for distribution. This work is perhaps the most significant one to be accomplished in its field during the past year, since it presents the subject in both a complete and, because of the unusually efficient corps of contributors, an authoritative fashion. The skill of the master teacher, the keen observer, the practiced diagnostician and the finished operator is apparent in every section of the three volumes.

Volume III discusses such subjects as surgical diseases of the thorax, bronchography, diseases of the breast, the liver, the bile passages and the pancreas, pancreatic function tests, diseases of the rectum, anus and genito-urinary organs and surgical conditions of the brain and its membranes, the spinal cord and the peripheral nerves.

The general index is bound as a separate volume of 155 pages and because of an efficient system of cross indexing makes reference searching extremely easy.

That the work would be outstanding is assured by the character of the editor, however it is this reviewer's belief that these three volumes are by far the most distinguished accomplishment of this most distinguished author.

FOR HEALTH

A report of the Greater New York Committee on Health.

The physicians of Greater New York, under the leadership of a number of men of real vision, decided that the time is now ripe when the matter of public health education should be brought to the attention of the profession, and also of the public, in a forceful manner.

The problem of the present campaign, sponsored by the five medical societies of New York, has two main objectives: First, to impress upon the public mind the importance of health examination; that health examination must not be looked upon as a luxury. Second, to point out that the family physician is competent to make a proper health examination; his intimate knowledge of the history of the patient helps him to particularize in each case. He is therefore in a better position to differentiate between what is normal and abnormal in a given patient.

All organizational detail is reported in this booklet, together with editorials and special articles to be used in conducting the campaign. This report will be useful to all physicians interested in public health activities.

RESEARCH AND MEDICAL PROGRESS AND OTHER ADDRESSES

By J. Shelton Horsley, M.D., Attending Surgeon, St. Elizabeth's Hospital, Richmond, Va. St. Louis, The C. V. Mosby Company, 1929. Price, \$2.00.

This book is a collection of addresses and papers by Dr. J. Shelton Horsley. Most of them have been presidential addresses or chairman's addresses, or orations before state medical societies, and have been delivered before mixed audiences of the medical profession and the laity. One of the addresses is the presidential address before the Virginia Academy of Science.

The addresses have to do largely with factors that make for medical progress and improvement in medicine, and do not deal with technical details of surgical procedures. They are along broad lines that should be of interest not only to the medical man of whatever specialty, but to the intelligent layman as well. Much stress is laid upon biologic principles in medical practice. The broader aspects of both medicine and surgery are dealt with and the effects of scientific research, not only on medicine but upon human welfare in general, are emphasized.

MINOR SURGERY

By Arthur E. Hertzler, M.D., Chief Surgeon, Halstead Hospital, and Victor E. Chesky, M.D., Chief Resident Surgeon, Halstead Hospital. Second Edition, St. Louis, The C. V. Mosby Company, 1930.

The purpose of this book is to aid the dispensary student to understand what he sees in his daily work and to enable him to gain a general perspective of the subject which may be only partly illuminated by his clinical observations.

If the book is read with the above in mind it is worthy of the effort. The chapters on Bandaging and Affections of the Head and Neck are especially well written and illustrated. F. W. F.

ANNUAL REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR 1929.

With comments that have appeared in The Journal. Cloth. Price \$1. Pp. 81. Chicago: American Medical Association, 1930.

This is the volume in which the Council annually collects the reports on articles found unacceptable during the year. This edition contains also several interesting preliminary reports on preparations which show promise but for which the evidence is not yet sufficient to justify acceptance by the Council. Reports are given on the following products rejected by the Council: Anayodin, claimed to be iodoxyquinolinol sulphonie acid (chiniofon) but marketed under a noninforming name without adequate statement of composition and with unwarranted therapeutic claims; Antiustio, an unscientific mixture marketed under a nondescriptive name with

unwarranted therapeutic claims; Kerasol and Keraphen, unoriginal products marketed under non-informing names; Sodiphene, an unoriginal alkaline phenol preparation marketed under a proprietary name with unwarranted therapeutic claims; Borocaine, procaine borate under a proprietary name; Quicamphol (Transpulmin), a quinine preparation for intramuscular injection in the treatment of lobar pneumonia; Toxogon, a preparation of inadequately declared composition marketed under a therapeutically suggestive name; Intramuscular Iron Arsenic Comp. (No. 201) and (Intravenous) Iron Cacod. and Glycerophosphate (No. 202), two irrational and unscientific mixtures exploited with emphasis on the numbers. Other rejected products are: Oovoferrin, Tamerici Salts, Elixir Kacyan-McNeil, and Tablets Kacyan-McNeil. An authoritative article on serum disease and serum accidents by MacKenzie and Hanger is of considerable interest and timely importance.

MEDICAL EDUCATION AND RELATED PROBLEMS IN EUROPE

Commission on Medical Education, April, 1930.

This booklet may be secured through the Office of the Director of Study, 215 Whitney Avenue, New Haven, Conn., and represents a compilation of his observations while visiting medical centers in Europe. The report will appeal particularly to educators and physicians contemplating advanced study in Europe.

MODERN OTOTOLOGY

By Joseph Clarence Keeler, M.D., F.A.C.S., Associate Professor of Otology, Jefferson Medical College; Otolaryngologist, Germantown Hospital, etc. Ninety original illustrations and 15 colored plates. F. A. Davis Co., Philadelphia, 1930. Price \$10.00.

This volume has been prepared primarily as a textbook for use by medical students. However, its scope and thoroughness are such that it well adapts itself for use as a reference volume. The author has divided his subject into twelve great divisions covering such phases of his subject as: the anatomy and physiology of the ear; methods of aural examination; deformities and diseases of the external ear; diseases of the tympani membrane; the eustachian tube; the middle ear and mastoid; intracranial complications of aural disease; diseases of the internal ear; otosclerosis and chronic progressive deafness; otology in children and finally the medico-legal aspect of otology.

The author has employed the paragraphic form of presentation which places emphasis and outlines the subject most forcibly. Adequate bibliography is furnished at the close of each section to meet the demands of the advanced students. An adequate number of well executed illustrations add much to the value of the volume.

The JOURNAL

of the

Iowa State Medical Society

VOL. XX

DES MOINES, IOWA, SEPTEMBER, 1930

No. 9

THE CONVERGING TREND OF MEDICINE AND SURGERY*

EDWARD M. MYERS, M.D., Boone

The history of an event, an epoch, a crusade or an institution oftentimes is of comparative little value. It is the progress through the centuries that attracts us and engages our interest. To the reader of medical history and medical philosophy, one of the most delightful and profitable diversions is the study of the course of general medicine, from Hippocrates "when in practice as in honor, medicine and surgery were one", to Galen, five long centuries, during which time only one great contribution to medicine was made, a knowledge of anatomy. Thence to Avicenna, the Persian, who taught that surgery was an art inferior to medicine and who was responsible for the divorce of medicine from surgery, "the greatest fundamental error of medieval medicine", on down to the dawn of the sixteenth century, when medicine entered upon a new life and a new surgery was founded on a new conception of anatomy and physiology of the circulation of the blood and lymph.

Fifteen centuries of vicissitudes, culminating in the truncation of medicine, "as false in theory as it was pernicious in practice", through which the physician lost not only a potent means of treatment, but lost a most valuable inductive method; he lost the only laboratory at his service and deprived his brains of the co-operation of the most subtle machine, the human hand. Little wonder that medicine fell into a state of sterility, when by these unnatural bands, surgery, her scientific arm, was tied. To lift surgical art to its modern scientific status, says Barker,¹ required the genius and influence of the three greatest surgeons of all time, Pare, Hunter and Lister.

During the long night of separation, when surgery was avoided by the physician and the field of medicine forbidden to the surgeon, general medicine suffered much, as is well illustrated in

the fragmentation of their work. "How many years," cries Penzoldt, "have we lost, in diseases of the stomach, of the nervous system and the pelvis, because surgeons pretend to be afraid to trench upon as essential part of their own pursuit and because physicians have been brought up in unhandy ways?" And while he would not ignore the limits nor the diversities of human faculties, for to one may be given manual dexterity, to another keenness of observation and to another, clarity of decision, yet his contention was that these divisions should be from personal choice, not by the survival of medieval rules, telling each physician and surgeon he shall not follow the natural bent and growth of his own faculties. Every wise man, all too soon, learns his own defects and limitations and the restrictions they impose on him, but to separate the man who treats a disease with one remedy from the man who treats the same disease with another remedy is contrary to art and common sense.

Lanfranc, who was driven from Milan by the Visconti, and fled to Lyons and then to Paris, where he became the founder of French surgery, saw the danger of this unnatural division of medicine from surgery, and in a frenzy of disapproval, I fancy, although I know nothing of his temperament, exclaimed, "Why this abandonment of operations by physicians to laymen, disdaining surgery, as I perceive, because they do not know how to operate; an abuse which has reached such a point that the vulgar begin to think the same men cannot know medicine and surgery".² to which utterance a recent writer has added, "Is it not strange that this ancient was wiser than most of us are even yet!" Harvey Cushing, in one of his delightful essays, has paraphrased Lanfranc's protest in his *Chirurgia Magna* into this terse sentence, "No one can be a good physician who has no idea of surgical operations and a surgeon is nothing if ignorant of medicine," and puts the query, "What difference after all is there between physician and surgeon except the kind of cases each of them chooses to treat and in the therapeutic measures applied".

*Address of the Chairman, Section on Surgery. Presented before the Seventy-Ninth Annual Session Iowa State Medical Society, Marshalltown, Iowa, May 14, 15, 16, 1930.

Although in the past, medicine and surgery have become so separated as to be regarded as two professions, it is my thought that the present, bringing together, as we believe, these two branches of the art, is a moment in which we may with interest and perhaps profit consider their future growth as intimately related and their development as a connected whole. Are these two great branches of medicine, really grown so divergent that their origin has been obscured by theorists on the one hand who see the patient as a whole, though imperfectly, and on the other hand by the specialist, who sees only in part, to remain so divided? In view of modern advancement in the ancillary sciences, we do not believe that they are, for when we differentiate the physician and surgeon, we do so on a basis of therapeutics and that in truth is all that separates medicine from all the other therapeutic cults.

When surgery was permitted to creep into osteopathy, chiropractic and others, their end was in sight, for as soon as they engage in surgery, then a thorough medical foundation is necessary, and eventually, dead or alive, will be swallowed by the profession, "distasteful as the dose may be".³ It is my conviction that the advancement of the art of surgery will not come with the invasion of new anatomic fields nor with further perfection of technique, but will come with increased knowledge of the cause and prevention of disease, with improvement in diagnostic methods, with the exercise of better surgical judgment and with a broader knowledge of general medicine. At least, these sources from which advancement might come represent the fields in which we particularly need to work.

No one, I'm sure, would contend that Lanfranc meant to imply that all physicians must practice surgery; merely that they will be better physicians the better their understanding of surgical therapeutics and further, that no surgeon is qualified to undertake operative measures who is not thoroughly grounded in medical diagnosis.

The sciences on which medicine is now firmly founded, physiology, biology, chemistry and physics are widening the range of medicine. One thus wonders if the progress of surgery henceforth will not depend, in an increasing measure, on an intimate co-operation with medicine. Surgical technique will improve, but not to the extent it has hitherto done.

The fear of sepsis will no longer command the thought of the surgeon as will his studies of the liver or pancreatic function, of sugar, of non-protein content, of hormones, of secretin or of metabolic rates, for these are factors which enable

us to understand the patient's peculiarities, his perverse symptoms, his unfavorable reactions, his resistance, and prepare him for operation or deny him an operation and guide him to a successful convalescence. It is not difficult to see how the surgeon, in the diseases of the stomach, the pancreas, the gall bladder, etc., beside his special advantages, has also all that liberty of inferential methods with which the physician alone has to content himself and "how rapidly the surgeon," as Allbutt remarks,⁴ "is not only attaining medical sagacity, but every day, observing the correctness of his sagacity in the laboratory of living processes and in the precision of his diagnosis, coming to surpass the physician".

In habit of thought, there is very little difference between the higher order of physician and surgeon. Both have knowledge of the common disorders; indeed, the surgeon, as I have already intimated, may have the advantage, unless the physician follows his patient to the operating table and there learns the living pathology. While not professing operative surgery, many physicians have splendid surgical judgment, just as a well-grounded surgeon shows ability in the art of practicing medicine; their divergence comes more through personal tastes. This thought may be illustrated in the treatment of aneurism, for example; the common road divides only at the point of treatment; one, taken by an Osler, leads to diet, rest and the administration of the alterative iodides; the other, by a Matas, to some method of surgical exposure.⁵ Lister's work, inspired by the investigations of Pasteur, gave to surgery the strongest weapon ever forged, not only for the relief and cure of disease but also for observation of living structural changes in the body afflicted with disease. The application of these surgical principles is becoming more general and their influence has led to the establishment of laboratories of experimental pathology and experimental medicine. These are promising signs, for they are bringing in closer contact the chemist, the physiologist, the pathologist, the therapist, the sanitarian, the hygienist, the physician and the surgeon.

Throughout this marvelous development, it becomes quite apparent that the physician is coming to recognize the surgical features of his cases. Surgery is becoming medicalized and, as the treatment of disease becomes less empirical, these two major branches tend to converge. I believe we can fully agree with Cushing when he states, "It is stupid to say that the surgeon has taken the appendix, the gall bladder, the stomach, the thyroid, the brain and threatens to take the lungs and cardio-vascular system away from the physician."

Thirty years ago, when I was a member of the House Staff of Mercy hospital, Chicago, Doctor J. B. Murphy was splinting the tuberculous lung by artificial pneumo-thorax, by injecting hydrogen gas into the pleural cavity, and well do I remember the bitter criticism that was directed toward him concerning the invasion of surgical therapeutics into the medical field. Less than a decade ago, a Professor of Medicine in the University of Stockholm was given an honorary scholarship by the American College of Surgeons for perfecting an operative method, requiring great skill, whereby the adherent lung may be completely collapsed in the treatment of pulmonary tuberculosis by pneumo-thorax. The idea of putting a diseased lung at rest was first conceived by an imaginative, daring and resourceful surgeon, Doctor Murphy, but it remained for Professor Jacobaeus, a physician, to add the important step of the intra-thoracic division of pleural adhesions. While this was an unusual occurrence, in reality it was merely another recognition of the successful invasion of the field of surgery by one who occupies the chair of medicine.

In the role of physician, driven by circumstance and expediency to the practice of surgery, as many of us are, the degree to which medicine and surgery are related is worthy of our earnest consideration and acceptance. Moynihan spoke a great truth when he said that "men have not been slow to recognize Lister for his incomparable service to surgery but they have been slow to realize that the principles he expounded are no less applicable in the domain of medicine, for infection plays a part in the cause of disease which remains in the province of the physician."⁶

What a change the new methods of diagnosis and treatment by radiology have wrought from the days of guess work and bitter disappointments to these days of confidence and precision. The differentiation by radiology between cardiospasm and carcinoma of the oesophagus does not present the difficulties it once did. Probably more errors have been made in the diagnosis of gastric ulcer than any other disorder.

Considering the accuracy with which a competent radiologist can, with sufficient study, make a diagnosis of gastric ulcer, it would seem to be only sound judgment, that neither the internist nor the surgeon advises or institutes treatment of this condition, based on clinical evidence alone, but only when confirmed by the radiologist.

A feverish search is now being made the world over for the cause of cancer. Nothing is more certain clinically than the fact that it is at first a local disease. All the eradication of cancer by surgery has been done at this stage. This fact

alone imposes a grave duty on the internist, which is, not only to discover early this malignant disease but to impress his patient with the seriousness of delay in putting himself under the care of the surgeon for radical surgical treatment.

One eminent authority has expressed the belief that in the diagnosis of gall bladder disease it will not be long before we will look upon gallstones in the same manner as we regard hemorrhage from gastric or duodenal ulcer, an unnecessary and unwarranted complication.

Three decades ago, William Hunter, in studying pernicious anemia, became convinced of its dependence on oral infection. Duodenal ulcer, except as a pathological rarity, did not exist to the internist until the surgeon revealed it; he differentiated it, devised means for its treatment and showed its comparative frequency with gastric ulcer. It is obviously plain why the surgeon has come to be regarded as an "experimental biologist", for it has been through his efforts that a revision of our knowledge of visceral disease has been brought about. How often has the internist held the stomach responsible for flatulent dyspepsia, nausea, pain, etc., when the gall bladder was the offending organ. How often, instead of a gall bladder full of stones, a group of mesenteric glands or a tuberculous ulcer of the intestine, or an advanced appendicitis or a malignancy of the jejunum or colon was found at operation.

Modern investigations indicate that some of the focal infections, causing rheumatoid arthritis for example, are determined as much by internal factors peculiar to that patient as by the infectious agent. We, as physicians and surgeons, thus become concerned with the fascinating but difficult study of the border line between the physiological and the pathological.

Perhaps the outstanding factor in the recent progress of surgery has been the co-operation of the internist and surgeon in the diagnosis, the pre-operative preparation and the post-operative care of the patient. In pediatrics, it is especially helpful because not many surgeons are well versed in the care of children. The intensive study and pre-operative preparation of the physiologic gastric types by the gastro-enterologist have made more exact and safer operations possible.

The rehabilitation of cardio-vascular patients by removal of toxic goitres, large pelvic tumors and troublesome gall bladders, has been brought to the greatest degree of accomplishment by the co-operation between the cardiologist, the anesthetist and the surgeon. Incomplete obstruction, whether in intestine, bile ducts or urinary tract, produces a toxemia due to retention of broken down body proteins, and although relief of the obstruction

is essential, it should not be undertaken until "correction of function, neutralization of the chemical state and detoxication are secured." (Lahey.) The service rendered the handicapped surgical patient by the work of Banting can never be measured in words.

In the field of traumatic and industrial surgery, something more is required than exact surgical knowledge. We must be able to differentiate between the real sufferer, the hysterical sufferer and the malingerer. Diagnosis by exclusion may be a good plan, but it should not be by physical exclusion. "In order to diagnose a neurosis it should not be necessary to remove the appendix, then the gall bladder, then the colon." The conclusion of the whole matter is that the early recognition of disease should be the eternal quest of the physician, for in this stage the patient may be amenable to prevention or relief. If the physician, instead of a too tenacious hold upon potential surgical lesions, would seek out the earliest signs and symptoms of these diseases and enable the surgeon to counteract their origin and check their development, such a co-operation would result in "making the patient safe for surgery and surgery safe for the patient".

We should be guiltless of allowing jealousy and misunderstanding to grow between the physician and surgeon in this great creative period in the science and art of medicine. How much more rapid our progress could be, how much more accurate our labors, if the physician and surgeon could meet on common ground in the interest of the patient. However, in our efforts to effect this alliance, we must remember that as close as the relationship between laboratory methods and clinical experience should be, it is chiefly clinical judgment which must govern our decisions; that laboratory research is mainly an auxiliary help rather than the controlling influence. It is a very grave error to allow the clear evidence of clinical experience to become subservient to the disclosures of the laboratory.

If surgery is to be something more than a craft, if it is to continue to be a means of research, those who practice it must have their minds strengthened by the study of the many unsettled problems and not be rendered impotent by provincial knowledge. Nothing so easily destroys a man's capacity for thought and action as insularity and "the restriction of his mental efforts to a limited part of a subject". The comradeship of laboratory and research workers with clinicians should be most intimate; neither can reap the full reward of effort without the help of the other. In this way the research worker, the surgeon and the internist may be brought closer together and

each made to realize that his science best fulfills its destiny, when, in collaboration with others, it is applied to understanding normal and abnormal functions in man.

But after all, our high purpose, as research workers, clinicians and surgeons, is best expressed by Sir Berkley Moynihan in the following eloquent words: "To give courage to those who need it, to restore hope of living to those who have abandoned it, with our skill to heal or check disease, is our great privilege, for we who, like the happy warrior, are doomed to go in company with pain and fear and bloodshed, have a higher mission than other men and it is for us to see that we are not unworthy."

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SOME PHASES OF THE CANCER PROBLEM*

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It had been my intention to show at this time the Canti Cancer Film, which illustrates many of the points I desired to cover, but as it will be shown this evening, I have no paper for this occasion. I shall therefore content myself by making a few remarks relative to some of the phenomena exhibited in the diseases incident to the later periods of life, among which cancer is found.

We realize that mankind must rely entirely upon our profession for that knowledge which shall protect him against the environmental forces that are inimical to his existence and for such services as shall promote recovery in event of sickness or injury. This being true, it is probably a duty devolving upon us from time to time to examine our activities with a view to ascertaining just how far we are fulfilling this dual obligation, and if in any sense we should happen to be remiss, to make a faithful effort at correction of our defects. It is this thought that prompts me to call to your attention some of the prevalent diseases of man as he exists today.

We at this time find ourselves at a remarkable period of the profession of medicine, in that if we were to examine statistics we would find that one-third of the life now allotted to mankind has been added within the last generation. In other words, while some seventy-five years ago man lived to an average of about forty years, he now lives to an average of approximately sixty years. This means that prior to the present generation the

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diseases which we as a profession were largely concerned in were those of early life, namely: the endemic and pandemic diseases. These have practically succumbed to the science of preventative medicine, with the result that today our activities are largely bestowed upon diseases of the senescent. If we exclude from consideration the children that die before the age of five, we will find that over two-thirds of the inhabitants of this state now live to be sixty. In other words, there are two-thirds more deaths taking place after sixty than there were in the fifty-five years preceding.

If we were to analyze the situation we would find that a number of diseases of degeneration make up this grand sum total of 24,532. What are these diseases? First, disease of the heart, which is responsible for one-sixth of all deaths in Iowa, and about one-fourth of the number of deaths that occur after sixty years of age. We find that diseases of the blood-vessels claim one out of every ten of the total number of deaths, and one out of every seven after sixty years of age; nephritis, one out of every fifteen deaths, with one out of nine after sixty; cancer, one out of nine of all deaths, and one out of seven of those past the age of forty, which is about the age at which it may be said cancer begins, and one out of five if we include only those over sixty years of age. In other words, at this time 1,800,000 or three-fourths of our inhabitants, live past the age of forty, which was the average life-age seventy-five years ago. Having reached and passed the age of forty, the individual enters the cancer age, and I think we find here an explanation as to why cancer is so extremely prevalent, and, of course, to this may be added a small fraction possibly due to an increased thoroughness in diagnosis. I am, however, really afraid that too large a percentage of diagnoses of cancer of viscera are made post-mortem instead of ante-mortem. Certainly any disease that would claim the life of one out of every nine of our inhabitants and one out of every seven past the age of forty, is one that should seriously concern us. You say, why should not diseases of the heart, kidneys and arteries equally concern us? Certainly they do, and more particularly the patients, but so far as we are concerned all we can hope to do for them is generally palliative in the sense of advising them how they may better conserve the functions of those organs in order to make the duration of life more extended and comfortable. As regards cure, I believe we can hardly say that we are able to cure a case of damaged heart, damaged kidneys, or damaged blood-vessels. Conversely, cancer presents a condition of which it may be said—I am going to use strong terms now, because I

want to drive this point home—of which it may be said that it is absolutely curable, *provided* the same is submitted either to removal or destruction prior to metastasis, and provided, furthermore, that the same is accessible and thus amenable to either of these procedures. You may say a great number of them are inaccessible. This is true as regards cancers of the brain, lungs, or liver, but otherwise not, for the gastrointestinal tract cannot be classed thus, although early diagnosis is essential and often very difficult. Certainly the cancers that occur in the skin and exposed areas are readily accessible for diagnosis and treatment. I may say that 34.5 per cent of cancers, as determined by the U. S. Mortality Statistics, occur in the skin, the oral cavity, the mammae, the uterus and adnexa, and the rectum, all of which are so exposed that little difficulty should be experienced in at least suspecting the presence of malignancy. If this be true we should save annually nearly 900 people, which number represents about one-third of the 2,700 deaths per annum from carcinoma in this state. You may say that 900 of the sum total of lives lost from cancer is not many to save. Gentlemen, 900 is more deaths than occur from all the endemic and epidemic diseases that claim a mortality in this state, and it is necessary to add 125 deaths due to syphilis and gonorrhea in order to bring the list up to the point where it represents one-third of cancer deaths. The 900 is more than the number that die of all the nutritional diseases, such as diabetes, rheumatism, affections of the ductless glands, etc. So after all, carcinoma is a disease worthy of our most serious consideration. We should remember that cancer is the one disease of all affections we are called to treat of which we may say it is possible in selected cases to institute a cure. What other diseases do we cure? Syphilis, by mercurial or arsenical preparations, malaria with quinine, leprosy with chaulmoogra oil or its synthetic equivalent, diphtheria and tetanus by antitoxin, diseases of the ductless glands by supplying the economy with the deficiency product, and vitamins for nutritional disturbances. Practically all the other diseases we treat present characteristic phenomena in that they are self-limited, but the patients often recover without treatment and sometimes in spite of the worst treatment, while some of the patients die in spite of the best treatment. But as regards cancer, the individual must come to the physician to be saved, or death will be the result. It is a disease of which you can really say that when the patient has survived the condition you are in a sense responsible for his cure. We will say, and it is true, that these cases must come early in order that we may eradicate or destroy the con-

dition before metastasis has taken place. And we have a tendency to do what? To place that responsibility back on the patient. I question the attitude. It is not just. We must keep in mind that patients do not consult us until they suffer pain or discomfort or there arises some abnormality or interference with function which the patient or family can recognize; this being true, we must bear in mind that cancer in its early stages never presents any of those phenomena—no pain, no distress, no discomfort. That is one reason these patients do not come to us early. Another reason is that we entertain a too pessimistic view in regard to this disease, based on the fact that a certain number of cancers, say 40 per cent, occur in the stomach and other areas, in which case we can hold out only partial hope of cure. We have no right to allow the incurable to affect our attitude toward those cases which may be classified as curable. Therefore, I believe that we entertain entirely too pessimistic a view as to what we may hope for as the result of timely treatment. We must instill in our patients the knowledge that the condition is not only not hopeless, but that it is curable if treated sufficiently early.

Gentlemen, we must hunt for cancer in place of expecting cancer to hunt us, which means that in the case of those patients consulting us after the age of forty we should at least show an interest in their welfare by saying to them, from now on people will rarely die of infectious diseases; only one death out of fifteen is due to pneumonia, one out of thirty to tuberculosis; and then detail to them the early phenomena of cancer. Of what do these phenomena consist? Simply a small indefinable growth, or perhaps an ulceration that has existed for some time. Make your patients understand that cancer is one of the diseases waiting for them, without letting them know of the danger. We never should allow a patient past forty to go out of our office without our practically knowing that they do not have cancer. There is no reason why we should make examination of all the skin for cancer, remembering that only three-fourths of one per cent of cancers occur in the skin aside from the face and hands. You can all readily observe a tumor if on the face, you can all see it if in the mouth, on the lips or tongue, and you can examine the breast while ostensibly looking for chest conditions. They do not need to know what you are looking for, and you can rule out even cancer of the stomach and also of the uterus, though the latter always should be examined if for no other reason than to recognize lacerations that may be the forerunners of cancer.

Just one final point, namely: If we are going

to do our duty by these patients, we must in a simple way impart to them the symptoms of cancer which should lead them to consult you in event of their occurrence. In handling this cancer problem we have to be our own health officer.

Editor's Note: This paper was discussed jointly with that of Dr. William L. Hearst. A full report of the discussion appears at the close of Dr. Hearst's paper.

DIAGNOSIS AND TREATMENT OF EARLY CANCER OF THE BREAST*

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The function of the breast requires that it be very vascular and rich in lymphatic tissue, for at the nursing period there must be a very large supply of blood and other nutritive material. As in structure it is a very delicate and complicated organ, is it any wonder that at times it is the seat of abnormal changes? At the menopause period there is a retrograde involution which may permit the development of a disturbed or alien process, in case there had been some violence or anything that might have altered the normal function of the breast, thereby giving this alien growth an opportunity to express itself.

There are approximately 10,000 breast cancers buried each year, and as we have seen the death rate from tuberculosis reduced more than half through early diagnosis and treatment, we have faith it will decrease practically to the vanishing point, and so we have every reason to believe that cancer of the breast will follow in the same curve if we as physicians do our part in recognizing and treating these growths at the proper time.

It is my belief, supported by those who have made this question a life study, that cancer is at first a local affair and when found at that stage and the proper treatment instituted it never reaches the real or established cancer stage. So it is for us to see that the diagnosis is made early and treatment compelled in such time and way that it never fully develops.

The early recognition of cancer of the breast is very important, for not until a reasonably accurate diagnosis is made will an operation for its removal be permitted, and the earlier the operation the more hope for a cure. At the present time, operation is the only method whereby we may hope for its complete eradication.

I need not give the causes nor the supposed causes, for they are all mooted, and no one has established any substantial claim upon which we may depend, therefore our best efforts should be exerted to prevent them and cure those not prevented. Whether the cause be inheritance, lac-

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terial growth, diet or some sort of so-called metabolic imbalance, or as is the more generally accepted idea of a long continued chronic irritation, it is as yet unknown. While the origin is very important and some day no doubt will be discovered, yet now it is for us to make the best of the situation, and do all possible to eradicate them early, thereby giving our patient all possible chance.

It might seem that from the situation of the breast, and its accessibility that an early diagnosis might be easy, but this does not always seem to be the case. An early diagnosis is of supreme importance for then many and possibly the majority of growths are curable. However if delay occurs until the disease is evident or easily discovered the disease is so far advanced that it is entirely incurable. Every breast tumor should be considered as a separate entity and so studied, for they are all different and each should be subjected to the most painstaking and careful examination and study. They are either malignant or benign and no intelligent treatment can be suggested until their true character is known. No effort should be spared until the true nature is ascertained.

In a malignant growth we usually have no pain early, for the changes in the breast are so slight that there is no pressure to cause pain. If pain is present we usually have a benign tumor or one complicated with some other condition, and the examination must be the more carefully done.

When, in a person thirty years of age or more, especially women, for about ninety-nine per cent of cancers of the breast are in women, we find the solitary non-elastic tumor incorporated into the breast structure so that the whole breast moves when the tumor is moved, edges not clearly definite but merged into the glandular tissue, we must suspect malignancy. If in addition we get the history of an injury, slight or severe, a crack, fissure or abscess during lactation or any period of infection we may be nearly sure it is of vicious nature.

My most satisfactory method of examination is to have the patient stand before me, with the chest bare to the waist, arms at sides. In such position we may compare the size, shape, color, contour, outlines, skin, and nipples of both entire breasts. By having the arms extended upward and outward, we may note any retraction or tension on any of the structures, or any fascia or muscle adhesions, shown by the elevation of the glands. Sometimes the tensing of the skin over the tumor will early show the slight dimpling or retraction, so noted in our text book, though it is not nearly always present in the early stage. By passing the

right hand into the left axilla, and the left hand into the right axilla and along and down the sides of the chest, we may find the glands not easily discovered. By standing behind the patient we may more easily examine the supraclavicular spaces. Any solitary tumor of a breast showing its connections with the breast tissue, which has these other symptoms may be considered malignant, for these indications are pathognomonic of breast cancers.

When we consider that the great majority of breast tumors are malignant, 85 per cent or more according to Mayo, and that a fair proportion of the benign ones later develop malignancy, we may be pardoned if we give our patient the benefit of the doubt and remove all that cannot be positively proved to be benign. If we eliminate the condition of cystic mastitis, which is so often a surgical case we have so few tumors that are not malignant that they need hardly be considered.

Palpation is possibly the most valuable method of examination, and when done by skilled hands and fingers much may be learned. It should be done very carefully and gently so that no cancer cells be displaced, and passed on to other parts and there set up new foci. Early in life many cancers are circumscribed or enclosed in tissue or membrane and so are not prone, at that stage to extension, but if any harshness or force is used many cells may pass through the capsule, and be carried even to distant organs and thus spread the infection to all parts of the body, infiltrating all tissues, bone as well as soft parts.

When these conditions of cancer of the breast have been found, this breast should be considered an emergency case, and the sooner operated upon the better. This condition is even more dangerous to the life of the patient than the gangrenous appendix or a strangulated hernia, for occasionally one of the latter cases get well, but a cancer never does. It goes on invading and extending its infection until it takes the life of the afflicted one.

Some patients may complain of pain in one or both breasts at the menstrual period and at other times, but it is usually intercostal neuralgia which may be shown by finding tenderness along the trunks of the nerves so afflicted, especially from the third to the sixth along the outer side of the breast, in the upper axilla, and at the posterior part of the scapula, when the arms are folded across the chest. Intercostal pain may be present with cancer, but this pain and tenderness in the breast lump is usually present at the period and may be due to some low grade infection. These cases may be treated by hot fomentations and a careful use of the breast pump to remove the

secretions from the ducts and thus clear up. Syphilis and tuberculosis must not be allowed to mask the cancer symptoms and when there is any reasonable doubt, exploratory excision should be made and the results of the biopsy should determine the next step.

Adenomatous and cystic lesions are usually sharply defined and circumscribed and when superficial, present smooth round outline tumors, which are not indurated and are not fixed in the breast, as are carcinoma, but may be shifted slightly in the tissues. A fair proportion of these becomes malignant and no one is able to determine when they pass from a safe to a dangerous tumor.

When lymph nodes are found in the axillary space we usually have passed from the early stage to one later. The more easily they are found the later the stage. Even yet in many cases there is great hope that radical operation may promise a cure, but the percentage is much less than before the extension to the axillary spaces. Fixation of the breast to the pectoral fascia or chest wall, cancerous invasion of the skin impending or present, ulceration, easily palpable axillary glands or supraclavicular nodes, distant or near, metastatic extension to the liver, lungs, bones, or a general anemia, loss of weight and the cachexia, are all very late symptoms, which should be forestalled by earlier operation, for these are the symptoms of late cancers and nearly all are incurable. The earlier the diagnosis, the earlier the treatment the greater will be the number of cures. The earlier the lesion and therefore the more uncertain the diagnosis, the brighter is the prospect. Dr. Erskine has said, "The laboratory is the place to make a diagnosis."

We must be ever on the alert to detect cancer in its earlier stages and be persistent in our study of the case until a definite diagnosis is made and then be as persistent in following our case until the proper treatment is secured. Else she may wander about seeking a more hopeful opinion until the days of grace are past and nothing but a palliative operation is possible.

When there is any probable question of the correctness of the diagnosis, it is well to have the patient anesthetized and the section excised and subjected to frozen section examination and have the operation completed at once. No delay may be allowed between the excision of the piece and the completion of the operation, else many cells may become dislodged and much harm done.

The only treatment that has promised any hope up to the present time is the removal of the tumor in toto and all infected and enlarged glands in the axillary space or any other place. The skin over the tumor and the adjacent parts must be sacrificed

with the fascia of the pectoralis major and the fat and all the other tissue and the entire axillary space cleared out. This should be done in all tumors of the breast unless proved benign. After such an operation the breast should be X-rayed thoroughly and with sufficient length of time. This is my operation of choice when the tumor is found early and the operation done at once.

At advance stages in addition to this the pectoralis major muscle and fascia and muscle of the pectoralis minor must be removed with the glands, in all the spaces and the supraclavicular area that is possible, extending to the chest wall. The X-ray treatments should be given as soon as possible and continued until all suspicion of recurrence is passed. With all such tumors, a picture of the chest should be taken before the operation for it is otherwise impossible to determine whether or not any infection may have entered the chest cavity or the mediastinum, rendering any operation useless. The tumor should be removed in one piece to avoid the chance of expressing any cancer cells into other areas, and then the other glands and tissue removed later. All growths should be examined with microscope and when necessary to form a correct diagnosis, a biopsy should be done at the table by frozen section, and the operation finished according to the results of the pathological examination. In the majority of cases this latter is not needed, for the diagnosis is easy at operation: in fact too easy.

Doctor Percy, I believe, suggests that every case be operated on by the cautery, and all tumors and suspected areas removed for biopsy and then the rest of the diseased tissue removed. He is satisfied that this will give a larger percentage of cures than any other method.

RÉSUMÉ

The cause of cancer is not known but the suggested causes are: Inheritance, bacterial growth, diet, metabolic imbalance, chronic irritations. Symptoms: a solitary, non-elastic, hard tumor, with irregular edges that merge into the other tissues, usually not painful in the early stages, though possibly so following some injury. With some glands or nodes in the axillary space the tumor takes the breast tissue with it when it is moved. Such a tumor must be removed, as 90 to 95 per cent of breast tumors are malignant sometime during their life. Cancer in its early stage is a local condition and when removed at that time never returns and is 100 per cent curable. The later the operation the smaller the chance of cure.

The treatment is surgical in practically all cases with total removal of all breast and axillary tissue, all fat, including glands and tissue in and about

the pectoralis major and pectoralis minor muscles, fat in the skin and sufficient skin.

I need not describe the operations as the various ones each have their own advantage in particular conditions as found in the various types.

The periodic examination made on every one over the age of thirty is a most opportune time to examine the breast. Any suspicious structures and conditions may be then noted and recognized so that they may be removed at the right time.

The medical profession has eliminated yellow fever, has controlled smallpox, has conquered tuberculosis and I have faith in its ability to search out and find the cure for cancer in the not far distant future.

Discussion

Dr. Frank M. Fuller, Keokuk—When we think of cancer and its treatment as being purely surgical it seems an anomaly to call on a medical man to discuss this problem, yet when we consider the cancer question as it exists today we know it is the medical man and not the surgeon who has opportunity to make the diagnosis and suggest treatment. Dr. Hearst has presented in a clear and succinct manner the exigencies that are open to the man looking for evidence of cancer, and that evidence should be presented to you through your own knowledge and not through suggestions coming from the patient. Dr. Jepson has referred to the fact that many cases of cancer present none of the symptoms that we generally consider as significant of cancer. Breast tumors very commonly are cancer, and may be absolutely unknown to the patient either by their presence or by evidence as indicated through subjective symptoms. One reason we are having so large a percentage of breast cancer that goes on to the point where patient and family are given concern is that application of the knowledge we already have is not made in the case of the patient who may or may not be afflicted with cancer. The proper, careful solicitation of evidence in every breast we examine will give to us a greater percentage of cancer cases in the stage in which something can be done. If you delay making positive diagnosis until the subjective symptoms and other evidence characteristic of cancer appear, the lesion has gone too far.

Dr. Hearst stated that every physician should have a knowledge of the structure of breast tissue. It is a marvelous piece of mechanism. When we visit a corn products factory in which corn is converted into glucose and corn-sugar, we find that there is involved a most remarkable mechanical process as well as a wonderful chemical one. Yet when we consider that into the body of the woman are taken those food elements which are capable of making good milk, and that then, by processes obscure, these elements are made into a product for sustenance of the child, we have an idea of the wonderful mechanism of the breast. Knowledge of the anatomy of the breast and especially of the lymphatic circulation is absolutely

necessary to an understanding of the possibilities of degenerative changes taking place in the breast through a process which we call by the peculiar name of cancer. Therefore the first essential in studying this problem in connection with recognition of cancer of the breast is application of the knowledge we already possess. We come here year after year and year after year and hear the same things, simply because we do not apply these facts every day. Why? Dr. Jepson expresses the belief that we are too pessimistic; I think we are too optimistic. Every doctor likes to see his patient smile when he says there is the absence of this or that condition. There is a little nodule in the breast, but we say there is nothing there, and the woman's face lights up—her fear has been there and she is delighted at the verdict. We have an unconscious reaction to this and allow the condition to go on and watch it, and when we watch a cancer growing we are lessening the chances of the patient. The diagnosis of cancer should if possible be made as a possibility at first examination of the patient, or if this is not possible we should have her return until we are convinced that the tumor is a probable malignancy, which it very likely is, or we are absolutely certain that it is benign.

Dr. Chas. Ryan, Des Moines—I am of the opinion that every one who sees cancer in its later stage appreciates the importance of this discussion and that these papers emphasizing the gravity of the condition are very timely, and in the few moments at my disposal I wish merely to re-emphasize what has already been said.

I give full indorsement to the statements made by the essayists, and wish to emphasize, even more strongly if possible, the great responsibility that rests upon the men who are in the general practice of medicine, because of the fact that in the majority of instances they are the ones who have the first opportunity of seeing patients with cancer. As Wm. Francis Campbell, of Brooklyn, has so ably stated, "Given, for instance, a case of early cancer of the breast in a woman who consults her physician upon its first detection, the fate of that woman is in the hands of the physician she first consults provided she follows his advice."

The cancer problem, as has been stated, is not hopeless, no matter how long the discovery of the real cause may be delayed. We have a treatment for early cancer which often prevents and usually cures. It is, to be sure, the same character of treatment we employ in late cancer, as we have no other treatment, but in late cancer it never prevents and seldom cures. We should bear this fact in mind, for it cannot be too frequently emphasized. We all know in dealing with this subject that procrastination proves in the end to be the thief of life, therefore alertness to detect the condition in its early stages is essential, and then should follow the carrying out of the treatment that is indicated in the case as the physician sees it instead of treating the patient as she would like to be treated.

One word of warning in regard to metastasis. Without going into detail the point I wish to make is this: In examination of cancer of the breast, uterus,

or wherever it may be, rough handling or too oft repeated handling, or rough handling in operating for cancer, is prone to result in metastasis due to cancer cells being sent into the lymph channels. Therefore the advisability of gentle manipulation in examination and operation should always be borne in mind.

Dr. James R. Guthrie, Dubuque—After listening to these able papers replete with important facts, and the no less brilliant discussion of the same, I feel that I can offer no possible excuse for intruding upon your time and patience were it not for the fact of the momentous importance of this question and the dreadful responsibility that rests upon the medical profession. Cancer is the greatest scourge that afflicts mankind, a scourge which eventually enters every home and casts its gloomy shadow around every fireside. Sir Arbuthnot Lane, of London, one of the best physicians of the world, recently in addressing a large meeting said: "Some of the greatest fortunes of the world are being expended for the solution of this vexed problem, the brightest and cleverest minds of the world have devoted their talents to the solution of this vexed problem, and yet, mark you, today one in every eight persons living"—think of it—"one in every eight persons living today is foredoomed to die of carcinoma unless something is done to stem the tide of devastation and of death." Furthermore, from the year 1911 to 1926 the mortality rate from carcinoma in Great Britain and her dependencies doubled, and, worse and more of it, in the last five years incidence of the death rate has been rapidly increasing. In the Chicago Tribune of February 18, 1929, in the first column of the second page, appear these startling head-lines: "America Lost in 1928 From Cancer Alone 125,000 Souls." The next day, to your table and mine, came from Health Commissioner Albert of Des Moines this statement: "In the mortality rate of 1928 heart disease stood first, and as a strong second came carcinoma, with 2,752 deaths."

These are some of the facts that warrant the medical profession of the United States and Canada in taking enthusiastic interest in plans being laid for stemming the tide of death from carcinoma, which is taking away some of the best people in our respective countries. Carcinoma of the breast and of the uterus are the two diseases which cause the increased rate of mortality among females, and carcinoma of the breast is the condition to which Dr. Hearst has particularly brought our attention.

I desire briefly to mention two important facts that have been stressed by both essayists and also in the able discussion following: First and foremost, the importance of early diagnosis; second, no feeble-minded attempt should be made to elude the issue, on the contrary we should come out frankly and make it a universal rule to institute immediate and complete surgical interference. After carefully confronting the facts as they come to us from unquestionable sources, I believe we will agree that Warbasse was correct when in his work on surgery he made this statement: "To wait for an absolute, accurate diagnosis is a surgical crime." Dr. J. B.

Murphy, in referring to appendicitis, made the statement that the physician who arrived at an accurate diagnosis of appendicitis and then neglected to follow it up with immediate radical operation was guilty of a surgical mistake that was in many instances followed by fatal results. And, my friends, you and I and all of us are confronting the same situation with reference to the physician who neglects his important duty with this, the greatest scourge of mankind.

Dr. Chas. E. Ruth, Des Moines—There is only one point I care to consider with reference to this important subject, and that pertains only to radical operative treatment of carcinoma of the mammary gland. I was perfectly satisfied with what Dr. Hearst said in regard to the radical operative work of removal of all of the tissues involved, all that might possibly be involved, or that might carry infective material within the possible range of eradication, but when that has been done remember that the axilla is entirely empty of everything except the blood-vessels and the nerves of the brachial plexus that pass through it. They are entirely denuded. Certainly if the work is done thoroughly on all sides, what does that mean with the procedure that has been outlined? It means the repair of that axilla and building it in to cover those vessels and nerves with cicatricial tissue, and cicatricial tissue only, with what result? The known result that all cicatricial tissue tends gradually, persistently, everlastingly, to contract, with the certainty that in the large proportion of cases, despite all the skill any surgeon may exercise, it will effect an interference with the lymphatic and venous return circulation that will be serious. Sooner or later there will be mechanical hindrance of return circulation with edema and, ultimately, pain that is simply terrible. I have a picture of that condition in a case in which there was no return of malignancy, but the woman lost her life when an attempt was made to free the nerves of the bite of the cicatricial tissue. After that painful experience of mine in attempting to relieve one of these patients and losing her life, I studied the matter as to what could be done to prevent like occurrences in my own and other hands. I worked out a plan that Murphy followed later, knowing that if the distal portions of the pectoralis major and minor are saved, say one-fourth, and stripped of their covering, this muscular tissue that has elasticity will yield if a fourth of it is saved, which will mean no recurrence as far as these muscles are concerned. They can be put in nicely over vessels and nerves and sutured to the thoracic wall, when the patient will have an almost certainty of non-impairment of musculature because the short major and minor with good attachment will deliver just as much power and the range will be unimpaired if you treat the case with early active and passive motion, and she will be spared the deposit of cicatricial tissue and consequent contraction.

Dr. Albert V. Hennessy, Council Bluffs—The most serious problem confronting the medical profession today has been very ably presented by the essayists. To my mind the most important phase of cancer lies not in its treatment, but involves the question of

prevention. If we hope to reduce this increasing mortality of cancer we have to bring about more proficient methods of control. We must bear in mind that cancer is produced by chronic irritation and recognize the areas in which such irritation is produced, and further realize that these damaged areas are amenable to treatment—that these tears in tissue, these piles, these skins with lesions, are reparable or removable; therefore when we remove the cause of irritation or correct the damage done to tissue we not only have effected repair, but have also prevented cancer. The medical profession is, I believe, responsible for the increasing toll of cancer, because we do not pay sufficient attention or give adequate advice to these people whom we see with various reparable conditions which if allowed to go on will produce cancer. It is all well enough to discuss the question of telling people about cancer, but before we start educating the public we need to educate ourselves considerably as regards the problem of prevention of cancer. How many doctors will treat a chronic gastritis so-called over a period of years with nothing but a bottle of medicine, without going into complete physical examination to find what is the cause of the chronic stomach trouble! We should recognize the factors that are productive of cancer and take the trouble to make thorough physical examination, and quit giving patients with skin lesions or stomach trouble a bottle of medicine and expecting that they will recover. We do not utilize sufficiently the apparatus we have at our command. Many men remove pieces of skin and tumor masses in various parts of the body and neglect the one essential thing—to have made a microscopic examination of the tissue. One should never remove tissue anywhere with tumor mass without having the laboratory pass upon the question as to whether the condition is benign or malignant.

Dr. William A. Rohlf, Waverly—We certainly have had two wonderful essays this morning, and the ground that was left by them, if any, has been thoroughly covered in the discussion. I desire simply to emphasize one or two points made by Dr. Hearst, who spent much time in stressing the necessity of careful diagnosis. We will agree that this is important, but we should not stop there. I want to take the position that while many of these lumps in the breast in early life, perhaps 60 per cent of them, are not in the beginning malignant, they are potentially so, and when a lump in the breast is found, irrespective of the age of the patient, we should get busy. I do not mean that in the early period of life a radical operation is to be recommended, but we should get down to the growth and do a radical operation if malignant. If benign, we should be satisfied to remove the lump in the proper way. Dr. Haggard of Kansas City said: "If I should remove a lump from the breast of a woman and on examination find that it was malignant, I would at once do a radical operation." Let us get busy in these cases because they will be malignant sooner or later.

Dr. Jepson's wonderful talk presented a host of ideas. The one thing that most impressed me was

the responsibility he places upon the medical profession, in that so many of these patients die of cancer after the age of forty, and that we have arrived at the stage where the average span of life is sixty. We know that much of this is due to the fact that in the early period of life such great progress has been made in the cure and prevention of disease, but it is well worth while to look after men and women over forty years of age because it is at this period of life that individuals contribute most to humanity, to society and to the state.

We have been having over a long period this intensive campaign of educating the doctors, but it seems to me it is not necessary to conduct such an educational program for the benefit of the doctors in this audience. It is the man who does not attend medical society meetings that we should get after. Ten per cent of the medical profession woefully lacks interest in this matter. It seems to me nothing but an out and out crime for the physician to advise a woman "to forget" the hemorrhage she has after the menopause, and yet that thing does happen. It is well to pause and ponder the difficulties encountered by research workers in discovering how yellow fever developed in the individual. That scientific fact eluded the doctors for years, then they proved in a way that it was all wrong when they had their patients bitten with mosquitoes that had just fed on yellow fever patients and nothing happened. The difficulty in determining the question arose from the fact that the existence of an incubation period of ten days was waiting to be and finally was discovered. When Dorsey discovered the cause of hog cholera and its cure in Iowa and saved millions by working with hogsties as his laboratory, the scientific fact was crying for Dorsey to recognize, which he finally did. Therefore who knows but that the cause and cure of cancer is today knocking at the door of some scientist, and I am sure he will open the door and when he does so, he will have made as great a contribution to humanity as any one has done except the Carpenter of Nazareth.

Dr. Hearst (closing)—I am thankful for the discussion, for many desirable points were emphasized. Dr. Fuller stressed the careful examination and the use of the things we know and can do and so not miss many of these cases. If we are thorough and careful and painstaking we will miss very few serious conditions. My subject was so large and as each case must be operated upon according to its condition I did not attempt to describe any definite operation, for each surgeon must act as the case warrants. From such unfortunate experiences as Dr. Ruth describes we learn what not to do and when not to do it. I thank you all for the attention and for the help in handling this subject.

Dr. Jepson (closing)—The discussion that has taken place here all goes to show that we gradually are coming to realize our responsibility in connection with this very important problem, and that is the direction in which the people suffering from this condition must find their salvation. It will have to come from within the profession and not be ex-

pected from without. I heartily endorse Dr. Fuller's statement that it is the practitioner who comes in contact with these patients, and the surgeons also and in fact everybody concerned, on whom this responsibility lies. Also allow me to endorse this other thought, give the patient the benefit of the doubt. In cancer cases that is diametrically opposite to the course we take in general practice, which as regards cancer means that when in doubt we treat the case as if it were malignant. If we were to do this in cases of cancer of the breast we would save from 75 to 80 per cent where we now save from 40 to 50 per cent.

INDICATIONS FOR TREATMENT IN ABORTIONS*

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During the past twenty years conservative therapy in abortion has come more and more into general use, and during the last decade an abundance of literature has accumulated on its various phases. Yet many physicians are still treating by the operative method, even though the leading obstetricians and gynecologists have shown conclusively that the conservative form of therapy gives the better results.

DEFINITION

By abortion we mean the termination of a pregnancy within the first trimester. It may be complete or incomplete, either of which may be infected. The scope of this paper is limited mainly to the incomplete group.

INCIDENCE

Estimates as to the relative frequency of abortions vary greatly. Thus, Little and Percival¹⁴ state that one-half of all child-bearing women have one or more abortions before the age of thirty-five and that one out of every four or five pregnancies ends in this manner. Stuart²⁰ found a higher incidence among city dwellers and noted its more frequent occurrence after the age of thirty. It has been stated that 80 per cent of women have at least one abortion, if an abnormally long intermenstrual period followed by an unusually heavy flow is looked upon as indicating the termination of a pregnancy.

TYPES OF TREATMENT

Radical Treatment: The radical or operative treatment consists in immediate emptying of the uterus. Cervical and vaginal packing, to avoid intrauterine manipulation, or instrumental and

digital curettage are the methods principally used. Benthin,¹ Geller⁵ and Nahmmacher¹⁶ advocate the use of intrauterine charcoal sticks, which are made by mixing the powdered charcoal with some inert colloid substance which melts at body temperature. They attribute detoxicating and bactericidal qualities to this preparation.

Conservative Treatment: The conservative treatment consists essentially in leaving the patient alone and in avoiding intrauterine manipulations. In addition to rest in bed, ice bags are placed on the abdomen and fluids are forced. Pituitrin may be given hypodermically in the hope of stimulating spontaneous expulsion of the remaining portion of the product of conception.

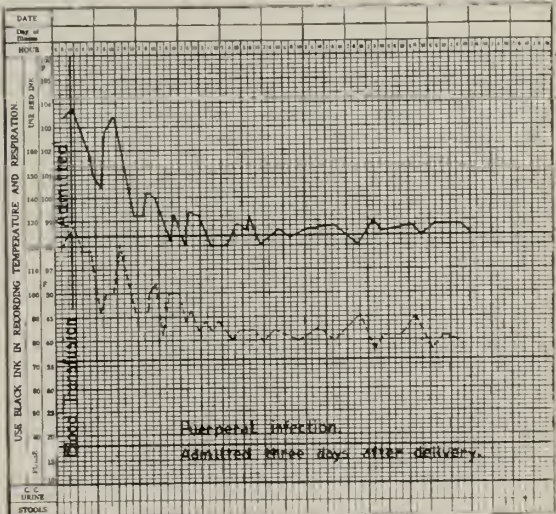
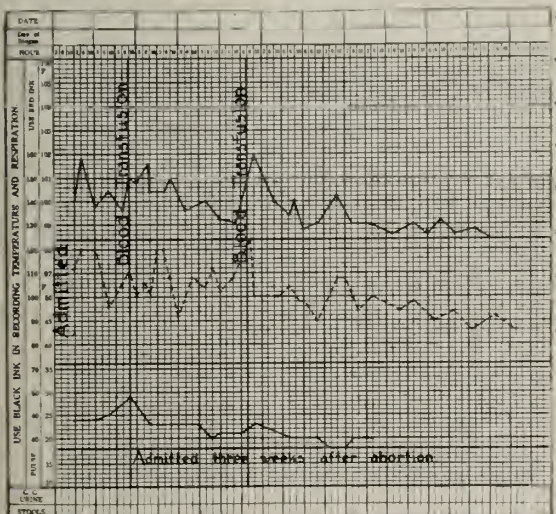
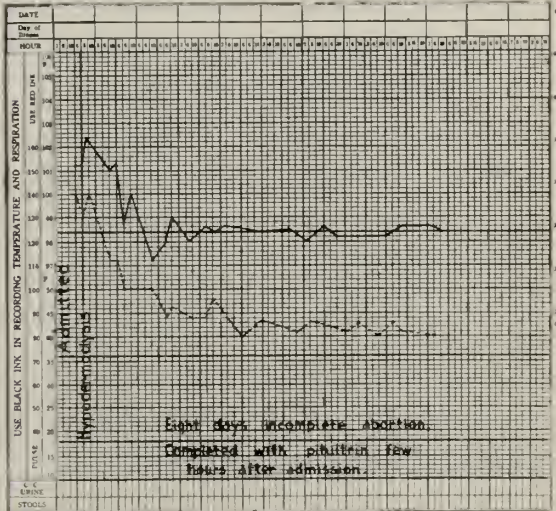
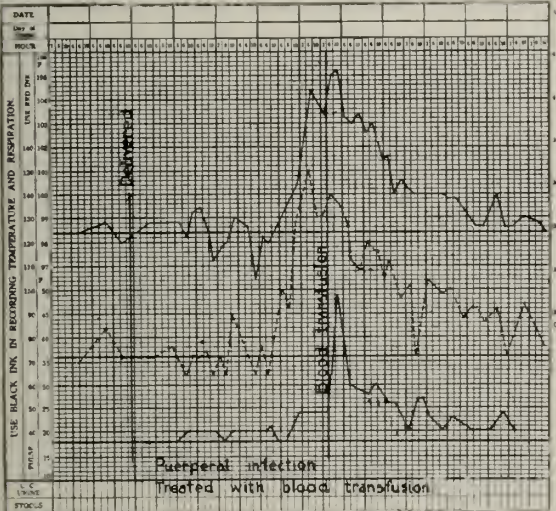
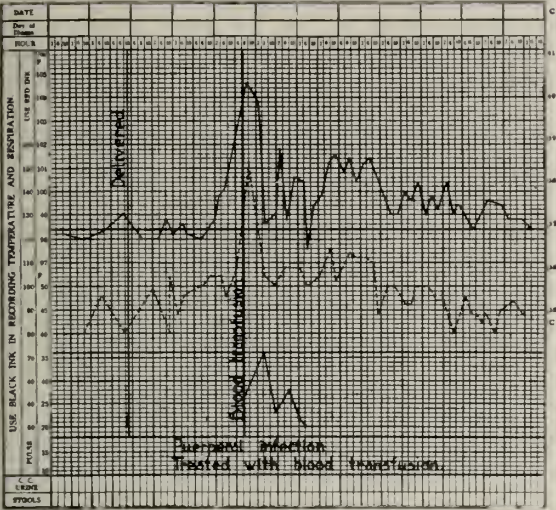
Both groups are agreed, however, that in the presence of serious bleeding sufficient to endanger the life of the patient, the uterus must be emptied. Guess⁸ and Tuttle²¹ found that 6.2 and 5 per cent, respectively, of all abortions bleed sufficiently to require such treatment.

Little difference of opinion exists in the handling of complete abortions; indeed, these patients seldom consult a physician and should they do so there would be little to do except advise the usual postpartum care. In the presence of infection nothing is to be gained by intrauterine instrumentation, as manipulation will only tend to break down the leucocytic barrier of defense. Every effort should be made to keep the infection limited to the endometrium, or in the event that it has extended, to prevent further spread.

In incomplete abortion, the completely conservative position is supported by Hillis,¹⁰ Novak,¹⁷ ¹⁸ Gellhorn,⁶ Churchill,⁴ Gordon⁷ and Willmoth,²² who advise against curettage until after an afebrile period of five days and then only when conservative management has failed to accomplish the desired result. Burghardt³ and Herzstein and Davis,⁹ on the other hand, advocate the immediate removal of the uterine contents, while Plekonen¹⁹ does a curettage in the afebrile cases, but advises conservative treatment for those with fever.

A few proponents of the radical method have reported small series of incomplete abortions with satisfactory results, but Latzko¹² in two series of 1,500 cases treated by the two methods, found 218 and 159 deaths for the operative and the conservative method, respectively, or 59 more deaths in the group treated by the radical method than in those treated conservatively. The most frequent cause of death was peritonitis, septicemia following in second order. Hillis,¹⁰ in a series of one thousand cases, found comparable results. Herzstein and Davis⁹ recommended emptying the uterus, because it shortened the convalescence.

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Typical Charts in Incomplete Abortions

Kreiger¹¹ confirmed this, but found also that the mortality rate was definitely increased. Naturally a shorter convalescence is to be desired, but it should not be obtained at the expense of an increased mortality rate.

In Russia, Levit¹³ and Bronnikowa² have shown in series of 2,930 and 1,470 legalized abortions, respectively, a high percentage of complications following intrauterine manipulation, even in presumably uninfected patients.

Our policy in treating abortions is outlined as follows: Vaginal manipulation is avoided as much as possible, the patient being examined only when confusion exists as to the diagnosis. All abortions are considered as threatened until we are reasonably sure of a different status. The patient is put to bed. In the presence of fever we use Fowler's position. Sedatives, generally morphine, are frequently prescribed and ice bags are placed over the abdomen. Fluids are forced by mouth, or if the patient cannot retain them, proctoclysis and hypodermoclysis are ordered. When we are dealing with an incomplete or inevitable abortion the patient is given one cubic centimeter of pituitrin hypodermically every four hours for four to six doses. Ernutin, an ergot preparation, is given every four hours for six doses. If no results are obtained by this procedure the medication is repeated again in a day or two.

Dehydration is treated and prevented by physiologic saline subcutaneously and intravenously. Occasionally glucose is added for its food value.

Should the abortion not be completed within five afebrile days, a gentle but thorough curettage is done under ethylene anesthesia.

Individuals with obvious organic causes for abortions are advised to return in a few months for treatment.

When peritonitis is suspected complete rest is obtained by the use of morphine. All fluids are given intravenously and subcutaneously. Glucose is used more freely in these patients. Only after the clinical signs of the peritonitis have completely disappeared do we start giving the patient food and fluid by mouth.

In our clinic the course of postabortal sepsis has been materially helped by the use of 200 to 350 cc. blood transfusions. Larger amounts are used in those with definite anemia. The potential dangers from this procedure are overbalanced by its value as a therapeutic agent. Transfusions are usually given every second or third day, using the indirect citrate method as a protection to the donors. The apparatus described by Mengert¹⁵ has proved very satisfactory.

The best results from transfusions have been obtained by their early use especially when the temperature is on the incline. In general, the greater the reaction the more gratifying the result.

The accompanying charts show typical reactions to the various procedures used in the treatment of incomplete abortions.

CONCLUSIONS

The preponderance of evidence in the treatment of abortion distinctly favors the conservative procedure which may be summarized briefly as follows:

1. Do no intrauterine manipulation, but treat complications as they arise.
2. Immediate emptying of the uterus is indicated only for those with endangering hemorrhage.
3. Small frequent blood transfusions are a valuable adjunct in the treatment of septicemia.

Decrease in mortality rate is more important than shortening the convalescence.

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A Public Health Survey of Iowa

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A public health survey of a state today means much more than a survey of the State Health Department. The field of public health has expanded to include the work of many agencies, official and unofficial, which operate independently of the Health Department. To understand this expansion and the necessity of including these other agencies, a brief consideration of public health evolution is necessary—

Evolution.—The first quarantines at Ragusa, Marseille, and Venice, in the fourteenth and fifteenth centuries were the result of the psychology of fear. They were efforts to prevent the introduction and spread of epidemic diseases. Our first boards of health were born of fear and hope. Fear of pestilence and hope that quarantine and isolation would prevent the spread of epidemic diseases. With this origin, it was natural that these boards of health should be given unusual police power and definite control of the individual for the good of the community. The early administrative health officers depended upon police power alone, and they were, in effect, policemen.

The epoch-making discoveries of Pasteur, Koch, and others from 1870 to 1890 gave a new impetus to the vigorous application of police power. The demonstration that disease was caused by fragile germs easily destroyed was responsible for the new vigor which marked the application of quarantine, isolation, and disinfection in the last decade of the last century. With the beginning of the twentieth century came the knowledge of the carrier. It was shown that even if doctors reported all cases under their care there would be as many more uncontrolled. Mild cases, atypical cases, and carriers who had no symptoms whatever could not be controlled by quarantine isolation or any other exhibition of police power. This new knowledge made health officers realize that control of the communicable diseases was possible only by the voluntary cooperation of the individual citizen and that this cooperation could

be secured only by education in personal and family hygiene. Public health education became even more essential to the health officer as his field of work expanded to include noncommunicable disease and the improvement and conservation of health. Health officers gave up the idea that all public health work could be done by personnel on the pay roll of the health department. It was obvious that the education of individuals in personal hygiene and the securing of their voluntary help in preventing disease involved the participation of many agencies, official and unofficial, outside the health department.

In the first decade of this century unofficial voluntary agencies undertook the public health activities of great importance and wide scope and boards of education developed plans and procedures in school hygiene. The responsibility for the health of the people was still squarely placed upon the shoulders of the health officer, yet a large part of the work necessary to discharge his obligation had to be done by personnel not under his direct control. The health officer, therefore, evolved from a policeman vainly striving to stamp out epidemic

disease, into a constructive statesman, courteous and persuasive, who could weld together in one machine the forces engaged in public health activities.

The policy of a health officer today.—In discussing the simple fundamentals of public health administration, omitting details, it is possible to consider the health officer, federal, state, and local, in general, because not only are the obligations and objectives similar, but the policy of administration in discharging these obligations and attaining these objectives is essentially the same for all health officers, whether their jurisdiction is over a county, a city, a state, or the United States as a whole. A health officer, therefore, regardless of his jurisdiction, must secure the active participation of the organized medical profession, the unofficial voluntary agencies, and the boards of edu-

This article is the first of two installments of the report made by Allan J. McLaughlin, who for the past thirty years has been associated with the United States Public Health Service. In 1914 Dr. McLaughlin reorganized the State Department of Health of Massachusetts and has since that time assisted many other states in matters of Public Health administration. Because of his exceptional qualifications he was requested by our former Commissioner of Health, Dr. Henry Albert, through the Governor of the State and the Dean of the Medical College of the State University, to conduct this investigation in Iowa.

cation, and utilize them to carry out certain parts of his comprehensive program which would not otherwise be possible because of lack of funds and personnel in the health department.

The health officer should secure the active participation and support of the organized medical profession by means of a special advisory committee on public health appointed by the medical society. This committee would not conflict with an existing board of health. The official board of health, by law and ordinance, must pass upon all police measures and also upon questions of policy. An advisory public health committee would advise and approve measures to be carried out by the medical profession not depending upon law and ordinance. The health officer must be enough of a statesman to secure such advice from the medical society and to bring his board of health to approve of such measures.

The health officer can do much to encourage the local medical society to accept its collective obligation, to solve its greatest problem—scientific medical service—including preventive advice and treatment for all the people at a cost within their ability to pay. The furnishing of such facilities for treatment by the medical society will give early preventive and corrective treatment to the preschool child, a field in which at present the health officer is scarcely able to scratch the surface.

No health department now has, nor can it hope to have, sufficient funds to finance all health work. Voluntary health agencies simply add to the total health department budget large sums for public health work, which they are now doing, or which should be developed. It is the duty of the health officer to have a complete comprehensive plan for all health activity. He should include these voluntary health agencies in that plan, allotting to them work which he is unable to do and which they are ready and willing to do. It is the custom, where the best utilization of the voluntary agencies is secured, to have a committee of voluntary health agencies, with representatives of every agency engaged in any public health activity.

The health officer will find that in the promotion of the health of school children a considerable part of his work will be done for him by the board of education. The amount of work done by boards of education in this field varies in the cities. In a survey of 98 largest cities of the United States, 23 had organized the work under the health department and 57 under the department of education, and 18 had some joint arrangement between the health and education departments. There is a third factor in cities, viz., the parochial schools. This complex situation calls for the qualities of statesmanship which a good health officer should possess. He must accept what is being done and

dovetail it in with his own child hygiene program. The main objective is to get the work done, and the matter of who shall do it is of lesser importance.

With the experience of the past three decades, it is not a difficult matter to set down on paper an outline of organization in detail of a State Health Department, with the major divisions it should possess. Iowa's failure to organize earlier in such a manner is not an unmixed calamity as modern reorganization can now be effected, profiting by the experience and mistakes of other states.

Much more important, and also more difficult, is the scheme of organization which will afford a sound foundation for such a department, by welding together in a comprehensive whole all the public health activities of the state, official and unofficial.

To organize the department in detail, with all its divisions and sections, without some sound method of utilizing in a joint program all the other official and unofficial agencies, is comparable to building a fine structure on a foundation of sand.

I shall, therefore, make this report in two sections:

First.—Organization of the department with the objective of including all public health work now being done within the state, official and unofficial, in a comprehensive program. The correlation of these other official and unofficial agencies, and the coordination of their work with the Department of Health, will afford the sound foundation necessary for the proper reorganization and development of the Department itself.

Second.—The reorganization of the Department of Health into the necessary divisions to enable it to discharge its obligations and function properly in the enlarged program.

SECTION I

ORGANIZATION OF OUTSIDE AGENCIES

In formulating a plan for utilizing all agencies engaged in public health activities outside of the Department of Health in a comprehensive joint program with a single direction, it is necessary to study carefully the work and potentialities of three factors, viz.:

1. The organized medical profession.
2. The educational authorities.
3. The unofficial agencies.

THE STATE MEDICAL SOCIETY

The two greatest defects in public health administration today are:

1. The failure to more than scratch the surface in the most important field of public health, viz.: the hygiene of the preschool child.
2. The lack of properly organized local health

units to apply locally, the policies of the State Health Department.

Adequate supervision of the preschool child in any considerable percentage of the total children can only be secured by the activity of the individual practicing physician.

Laudable efforts are made through Parent-Teacher Associations, Baby Welfare Stations and Public Health Nurses, but the percentage of children reached is small. We must have a healthy public opinion demanding examination of the preschool child, with a county medical society establishing facilities to aid the practicing physician in responding to this demand.

In order to get for the preschool child early diagnosis, preventive advice and treatment, and correction of defects, we are compelled to focus upon, as our primary objective, the greatest problem confronting the medical profession today, viz.:

"How can adequate medical, surgical and preventive advice and treatment be made available, within easy reach of all citizens, at a cost within their ability to pay?"

The layman has been educated and now knows that diseases can be prevented or their hazard minimized by early diagnosis and treatment. The average citizen, for financial reasons, does not consult a doctor until he is definitely ill, and very often postpones calling the doctor until he is confined to bed. It is not the cost itself but the lack of definite knowledge of what that cost may be. More important still, in smaller cities and towns there is an absolute lack of clinics and out-patient departments. Many careless statements and inaccurate generalizations are made in regard to the cost of medical care. In the larger cities clinics and out-patient departments have developed, independent of the medical society as a unit. For this reason the trite statement is often heard that the poor in large cities and the rich anywhere can secure the best medical service, but that for the intervening classes such treatment is not available.

The cost of the best medical care, where available, is worth what is paid for it. The cost has not increased in greater proportion than the costs of other service; but medical and surgical diagnostic and treatment facilities have been elaborated to include many new procedures, worth their cost, which were not included years ago. The greatest problem is not the cost but the absence of facilities for modern diagnosis and treatment at a definite known cost.

It is the collective obligation of the organized medical profession to solve this great problem. The American Medical Association has recognized this collective obligation, and every county medical society is urged to accept its problem and discharge its obligation. In the large cities the prob-

lem is complicated by group clinics, industrial clinics, and other installations outside the control of the medical society. In the smaller cities the situation is less complex and solution less difficult. Difficult or easy, the solution should come from the medical society. The demand for these services is based upon sound public opinion and must be satisfied by some agency. Protracted delay in grappling with this problem, seizing the initiative, and establishing such facilities can result only in makeshift clinics established by institutions and agencies independent of the organized profession or by quacks and charlatans.

The installation of pay clinics by the medical society, or with the seal of its approval, gives the individual citizen valuable aid in avoiding the so-called clinic of the quack and charlatan.

The pay clinic either with a fixed rate or a sliding scale is a response to the demand of public opinion. The organized medical profession has been reluctant to take any steps to respond to the demand. Such clinics have been established by individual or groups of doctors, in connection with hospitals or medical colleges, or by endowments or foundations. Unfortunately, this insistent public demand has been capitalized by quacks and fakers who often establish clinics with elaborate and very impressive equipment.

The development of facilities for early diagnosis and early treatment by the organized medical profession at a known cost is frankly socialization of the practice of medicine. Such socialization is inevitable. It rests with the profession whether it shall seize the initiative and satisfy this demand or stand passively by and be compelled to submit to the process while it is carried out by outsiders.

State medicine may not come as a result of inactivity of the organized profession, though it is always a menace; but a gradual evolution—a haphazard growth in which the organized profession is inactive and inarticulate will produce a chaotic condition, which may be even worse than state medicine.

These county medical societies must provide out-patient departments or clinics where examination, early diagnosis and treatment of ambulatory cases can be made. Usually there is a small hospital which can be equipped and expanded for this purpose. It should be organized on a business basis, dividing the clientele into:

1. Indigents, to be paid for by the county.
2. Those unable to pay full fees, but can pay something, according to income.
3. Those able to pay full fees.

A county medical society which organizes for public health work by establishing facilities for early diagnosis and treatment and by fostering a full-time county health unit, will be rendering its

greatest contribution to public service. Without active participation by the local medical society as a unit, county health work is extremely difficult and generally a failure.

Enthusiastic workers who are poor waiters often attempt county public health organization without this active participation by the county medical society. Such efforts are doomed to failure. You cannot build successfully and permanently in advance of public opinion, and in public health progress the most important factor in public opinion is the collective dictum of the medical society.

If this active participation of the county medical society cannot be secured, then attempts to organize in that county should be deferred until public opinion brings about the desired change of attitude.

No public health work should be initiated in any county except through the direct approval and action of the medical society as a unit.

These facts bring to the State Medical Society tremendous responsibilities and duties. It is through the initiative of the State Society that these activities of the county medical societies will be begun and carried to fulfillment.

In accepting the solution of this great problem as its collective obligation, the State Medical Society pledges itself to stimulate and assist the county medical societies in discharging this obligation as rapidly as the local units are able to establish these facilities.

It is not sufficient to have the best, most modern equipment and technical skill, in one or two large centers in a state. It becomes the duty of the State Medical Society to arrange for the distribution of such equipment and technical skill by decentralization, by the establishment in county seats of such facilities where they are available and within easy reach of every citizen.

The fact that the problem is difficult and calls for executive ability, statesmanship and energetic, collective action, does not alter the fact that it is the problem of the State Medical Society. It is not expected that the State Medical Society can achieve the ideal immediately, but many county medical societies are ready now and by the example of these, within ten years every county in the state could be so organized.

Incidentally, the improvement in facilities for practice in county seats would tend to solve another of the pressing problems—namely, the poor distribution of new graduates. The graduate of a modern, Class A medical school today is accustomed to use the latest technique, methods and equipment for early diagnosis and treatment. He knows he will not find facilities for such practice

in the small towns. He therefore avoids the country towns and crowds the large cities. If the practice of medicine can be made attractive in country towns by the establishment of modern facilities for early diagnosis and treatment by the county medical society, the young graduates would be very glad to practice in such towns.

I have conferred with the officers and leaders of the State Medical Society, with many local doctors in counties, and with the other leaders of medical thought in Iowa, and I have not encountered a single man who has not been sympathetic to the suggested policy of the organized medical profession.

With this assurance, I am going to ask the Iowa State Medical Society to make a formal Declaration of Policy, accepting this great problem as their collective obligation and pledging themselves to bring about the desired activity of county medical societies as rapidly and as thoroughly as possible.

STATE EDUCATIONAL AUTHORITIES

Chief among the state educational authorities which include public health activities in their work are:

1. The State University at Iowa City.
2. The State College at Ames.
3. The State Teachers College at Cedar Falls.

The University of Iowa. The public health activities of the State University at Iowa City may be considered as a part of its legitimate function of education. In no instance, in so far as I could determine, is there any activity which does not belong in the category of public health education. These activities should not only be continued but should be expanded far beyond their present possibilities, which are limited by inadequate appropriations.

The College of Medicine receives appropriations which enables it to do the laboratory work, bacteriological, serological and water analyses for the State Department of Health. This arrangement should continue, for reasons of economy and lack of housing facilities in the State Department of Health. This item will be further discussed in Section II.

The line of demarcation between the fields of activity of the University and the State Department of Health in maternal and child hygiene is clear. The work of the State Department of Health is administrative as befits the authority charged by law with the prevention of disease and the promotion and conservation of health. The work of the University is educational solely.

The following agreement was drawn up and signed by the Commissioner of Health, the Dean

of the Medical School, and the Director of the Extension Division:

"Inasmuch as there has been much discussion during the past two years in regard to overlapping and duplication in the departments concerned, the following proposed basis of relationship between the State University of Iowa and the State Department of Health has been formulated to clarify their distinctive and common spheres of activities in maternal and child hygiene."

FUNCTIONS OF THE STATE UNIVERSITY OF IOWA IN RELATION TO MATERNAL AND CHILD HYGIENE

1. Direct instruction of students of medicine, dentistry, nursing, welfare work, and education. Intramural instruction.
2. Indirect educational program for physicians, nurses, dentists, and welfare workers through extra-mural instruction.
3. Studies in all fields of health and disease relating to children and mothers—research, contributions to knowledge, investigative work. For example: the work of the Child Welfare Research Station.

FUNCTIONS OF THE STATE DEPARTMENT OF HEALTH IN RELATION TO MATERNAL AND INFANT HYGIENE

1. Control of communicable diseases.
2. Registration of births.
3. Organization and guidance of local units for administrative enterprises. For example—
 - A. Promotion of plans to have every child receive periodic examination.
 - B. Promotion of plans to insure a sanitary supply of milk.
4. Sanitary laws—inspection and enforcement.
5. Immunization against diseases.

COMMON FIELDS OF ACTIVITY OF THE STATE UNIVERSITY OF IOWA AND THE STATE DEPARTMENT OF HEALTH, PREFERABLY TO BE CO-ORDINATED AND COOPERATIVE.

1. Publications.
2. Health education of a popular character covering the field of maternal and child welfare.

This agreement outlines fairly and clearly the limits of each field.

Splendid work is now being done by giving courses to doctors in obstetrics and pediatrics. The course consists of lectures. No clinics are held and the work is purely in the nature of post-graduate instruction. These courses are extremely valuable in maternity and infant hygiene and the appropriation to the University for such work should be increased.

A very fine piece of public health educational work is being done under the Dean of Dental

School. Their Bureau of Dental Hygiene gave 310 talks to an aggregate audience of over 17,000—dentists, teachers, nurses, pupils and parents, and visited 220 communities. This is very effective public health education. It should be continued and expanded to larger proportions.

Very valuable research work is being done in child development and parent education, and summer courses are given by the Extension Division. The research station was established in 1917 and is the coordinating center for such work at the three state institutions, the University, the Iowa State College, and the State Teachers College. Nutrition, mental hygiene and other phases of this work are of great interest to the State Health Department. There are other educational activities, legitimate functions of the Extension Division, of keen interest to the health department. For these reasons some means must be devised for keeping the Department of Health in touch with these phases of public health education work.

Medical colleges have one tremendously important duty and function in relation to public health administration. It is the establishment of an adequate and more effective system of teaching preventive medicine and hygiene to the undergraduate medical students. The present practice varies in different colleges. Most schools have either a professor of preventive medicine or some one delegated to give lectures on this subject. In regard to adequacy and effectiveness, the major defect is a lack of practical demonstration. Teaching consists of didactic lectures, the material for which is found in any textbook on hygiene. What is needed is a close affiliation with a health department where the student can see the preventive medicine in actual practice. The student will remember much from actual demonstrations, but lectures alone often are ideal soporifics in view of the fact that they produce sleep and have little after effect.

The desirability and need for this more adequate teaching of preventive medicine is obvious, for many reasons. It is essential in his own interest to adjust the student to the change of accent in the practice of medicine from curative to preventive. But there are two very definite reasons why the public health administrator desires this improvement in teaching:

1. There will be graduated to enter practice a body of young doctors who will understand the objectives and efforts of the health officer and will therefore be sympathetic and helpful.

2. Health officers at present are recruited from the practicing medical profession by political appointment. Their only knowledge of preventive medicine upon their first appointment is the in-

struction they have received in medical college. This has either been entirely neglected or consisted of a few lectures with no actual demonstration of public health work. This man has to learn something entirely new, and in the process will make many costly mistakes.

Some years ago it was hoped that postgraduate schools of public health would cover the need of trained health officers. This dream has not been realized. Our new appointees are not postgraduates in public health; they are ordinary practicing physicians, and appointees will continue to be such under our political system of government. Their training must come from actual experience in a health department or by short courses, and this is greatly facilitated by having a foundation acquired by an adequate undergraduate course in preventive medicine.

Just as the State Department of Health is vitally interested in the teaching of preventive medicine to the undergraduate medical students, the Dean of the Medical College is especially desirous of having the course in preventive medicine and hygiene made practical by demonstrations of applied preventive medicine as practiced by health departments. For this reason a model county health department should be established in Johnson County so that its work can be used for demonstration purposes in teaching preventive medicine to students.

The model health department in Johnson County is also necessary for postgraduate instruction for health officers and nurses, in summer courses, and during the regular school year.

The Dean of the College of Medicine is keenly interested in the problem of unequal distribution of doctors. He therefore is also interested in the wider distribution of high grade medical service, by establishing centers with modern facilities and equipment in county seats. He can assist in this decentralization and by making the small town more attractive for modern practice, secure a better distribution of the young graduate.

The Dean of the Medical College can, by means of public health education activities of the University, assist in educating the public to demand early diagnosis and preventive and corrective treatment from the physicians for the children from one to six years old. He can also render tremendous service by undergraduate and postgraduate instruction in preparing the doctors to respond to that demand.

The Iowa State College of Agriculture and Mechanic Arts is doing public health work in several fields. This work in no way conflicts with, but on the contrary is very helpful to the State Department of Health. Work in connection with

production of milk, tuberculosis of cattle, undulant fever, examination and research in industrial wastes and other fields should be continued and expanded by larger appropriations. Some means can be devised for correlating this work with the general public health work of the state, without disturbing its location or curtailing its activity.

State Teachers College. State teachers colleges and normal schools have a wonderful opportunity for real service by more adequately teaching child hygiene to teachers. The lack of training in the practical application of child hygiene methods is a real handicap to public health work in the schools. The need is most apparent in teachers of the first to the sixth grades and in the schools of the small city or county. In these situations it is not uncommon for one public health nurse to be carrying an overload of 8,000 pupils. If the teachers are trained they understand and are helpful, and in spite of the overload a creditable result is often obtained. The teacher is a very intelligent possibility in public health. She teaches hygiene and health habits and has observation of the children through the entire school day. Her training in hygiene is, therefore, one of the vital essentials in the health of the school child. Presidents of teachers' colleges have made very creditable efforts in many states to give good courses in health education. They have good textbooks and excellent instruction of a didactic type. With one or two exceptions, the same defect occurs which was charged to the teaching of preventive medicine in medical colleges, viz., too little practical demonstration of applied child hygiene. To correct this defect it is necessary to have a doctor and nurse trained in child hygiene on the faculty, and to have an arrangement with the city or town in which the college is located by which the city schools are used by the doctor and nurse to demonstrate to the students, in groups, the practical work of child hygiene.

The State Teachers College at Cedar Falls is fortunate in its president, Professor Latham, who is thoroughly alive to the importance of adequate teaching of child hygiene to teachers. He is anxious that this teaching be made as practicable as possible, and to this end the State Health Department should organize Black Hawk County with a model County Health Department. This model health department could then be used for practical demonstration purposes to make the teaching of applied child hygiene to teachers more effective.

UNOFFICIAL HEALTH AGENCIES

The origin of unofficial voluntary health agencies and their development into great public

health machines was due to two things: First, the restriction of official health work to an attempt to control communicable disease by police power alone, and, second, the demand of public opinion based upon new medical knowledge that new methods be tried, methods independent of police power and based largely upon education. The impatient desire to expand public health work to include all diseases and to attack the communicable diseases directly by education of the individual citizen was a response to the seeming unwillingness of official health departments to expand and utilize other methods than those based on police power. The health officers were not unwilling to expand, but it was impossible to secure funds from official sources for untried methods, the efficiency of which had yet to be demonstrated.

The greatest contribution of the unofficial voluntary agencies was the demonstration in the first decade of this century that educational methods were effective in the prevention of disease and the reduction of death rates and that such methods were legitimate weapons for the use of official health departments. Thus, as pioneers, voluntary health agencies have been of great help to official health departments in demonstrating the value of new procedures and in financing these demonstrations when funds for such purposes could not be secured by the official health department.

These two separate movements advancing side by side, the expansion of official health departments and the development of voluntary health agencies were bound to conflict, and at first there was misunderstanding, distrust, and antagonism. In the second decade much of this conflict had disappeared; and in the last decade the policy of unofficial health agencies in their relation to health departments is so clearly defined, understood, and accepted that there is today no reason for conflict. This clarification of policy was brought about by conferences of health officials with the heads of the great national unofficial health agencies. It is now clearly understood that an unofficial health agency is an auxiliary of the duly constituted health authorities, with freedom of action in untilled fields, and the obligation to turn over to the health department any legitimate public health activity whenever the health department can secure the funds to carry on the work. The voluntary health agency has another obligation; it is that when the health officer has a comprehensive program of public health activity it shall accept and agree to carry out such parts of that program as are within its power. And so today the proper utilization of the voluntary public health agencies depends upon the health officer himself. They increase enormously the total budget for public health far beyond the

amount which the health officer can secure by official appropriations.

The Iowa Tuberculosis Association has a record of splendid achievement in public health work in Iowa. It has with its local units a budget of about \$125,000.00 annually. Because of the lack of funds and the consequent lack of personnel in the State Health Department, the Iowa Tuberculosis Society has had to carry, single handed, a very heavy load.

It has been active in chest clinics in conjunction with county medical societies and in assisting the Bureau of Dental Hygiene of the University of Iowa and the Oral Hygiene Committee of the State Dental Society in oral hygiene.

It has furnished the services of Miss Countryman to the State Department of Health to supervise Public Health Nursing in the state and been very active in effective popular public health education.

The work of the organization would be even more valuable and effective if there was a better development of the State Department of Health in child hygiene and if more full time county health units could be installed. This splendid organization does not receive from the seal sale the total which it should. With better organization in the State and County Health Departments and with more active participation by the medical societies, the receipts from the seal sale can be doubled.

This, like similar organizations, should not and does not receive any money from the state legislature, but all official agencies and the organized medical profession should give their hearty support and indorsement so that the receipts from seal sales might be brought up to at least \$250,000.00.

The Iowa Heart Association is financed by Christmas seal funds and the Iowa Tuberculosis Association rendered great assistance to the Heart Association in holding clinics, distributing literature and other public health education work in heart disease.

NECESSITY FOR A PUBLIC HEALTH ADVISORY COUNCIL

In the foregoing pages the principal agencies outside the Health Department which are doing or should be doing health work, have been considered. How can the work of these various agencies be included in a general program and coordinated with the work of the official State Health Department?

Public health in its broad modern sense includes not only the activities of the State Department of Health, but the activities of these other official and unofficial agencies as well. One of the

most effective ways of incorporating these activities in a comprehensive state-wide program of public health is to give them representation in some form of joint council, committee or board.

State boards of health could be used to afford representation to these other agencies, but as a matter of fact are seldom so used.

In two states, Alabama and South Carolina, the State Medical Society is in effect the State Board of Health and so functions by means of a committee. Eleven states require all members of the Board of Health to be physicians and twenty-one other states specify that a certain number of the board members must be physicians.

Massachusetts, New York, Connecticut, Ohio, Maine and West Virginia have a Public Health Council which chiefly functions as an advisory body to the Commissioner of Health, who is the executive head of the Department. Even in the states where the executive power is vested in the Board, it is the modern custom to delegate this power to the Commissioner or state health officer, the Board acting as an advisory council on matters of law regulation and policy.

With these facts in mind it is fair to assume that members of a State Board of Health should be appointed and hold their office by virtue of their ability to contribute technical or scientific advice or because they could coordinate with the work of the Board activities of organizations which they represent.

The presence of physicians on the Board partially carries out this idea, provided they are carefully selected for their qualifications or that they represent the organized profession.

The composition of the Iowa State Board of Health does not secure the desired result indicated above in either particular. The governor, the secretary of state, the treasurer of the state, the auditor of the state and the secretary of agriculture are members *ex officio*. These are busy officials with neither the time nor the technical training necessary to make them useful on a Board of Health.

There are five members appointed by the governor, all doctors, not more than one from each congressional district. These may or may not be able to contribute advice on preventive medicine or public health administration, depending on the care with which they are selected.

The responsibility for the health of all the people is placed by law on the State Board of Health and its executive, the Commissioner of Health. It is the Commissioner's primary duty to formulate a comprehensive plan of public health for the state which will include activities now carried on by other departments of the state gov-

ernment, by the organized medical profession and by unofficial voluntary agencies.

It is obvious, therefore, that in formulating such a plan and carrying it out, the Commissioner would be assisted very greatly by having the executives or authorized representatives of these other departments or agencies as members of his Board, or of a Public Health Council.

Legislation can be enacted which would change the composition of the State Board of Health by providing for representation upon that Board of the agencies doing public health work. Pending such legislation, the governor should appoint a special Public Health Advisory Council for the purpose of coordinating all state public health activities in one comprehensive plan.* This Council should consist of the following, designated by the governor:

1. Five members of the Iowa State Medical Society, selected by the Board of Trustees of the said Society.
2. Chairman Oral Hygiene Committee State Dental Society.
3. Dean, College of Medicine, University of Iowa.
4. Professor Hygiene and Preventive Medicine, University of Iowa.
5. State Superintendent of Public Instruction.
6. President Iowa State Teachers College.
7. Professor of Hygiene, Iowa State College of Agriculture.
8. President State Veterinary Society.
9. President Iowa State Tuberculosis Association.
10. Director Extension Division, University of Iowa.
11. Director Extension Division, Iowa State College of Agriculture.

It should be understood that the Commissioner of Health should be a member of this Council, and should preside over its meetings as Chairman of the Council.

[Section II, Internal Organization of the Department, will appear in the October issue of the JOURNAL.]

COMPLICATIONS OF DUODENAL ULCER

GORDEN N. BEST, M.D., Council Bluffs

The subject that I am to discuss today is too broad to fully cover in the time allotted, but I wish to bring out some points of importance in our treatment of the condition.

In considering the complications of duodenal

ulcer it is necessary to briefly review the symptoms of uncomplicated ulcer in this portion of the gastro intestinal tract. First, pains which may vary from slight feeling of fullness and pressure through a gnawing, hungry "all gone" sensation to the most severe boring pain located in the epigastrium in a small area. This distress appears from one to two hours following a meal and may last from fifteen to twenty minutes up to the next meal. It is always relieved by eating food containing an adequate amount of protein, alkali in sufficient amount to neutralize the free hydrochloric acid, by vomiting, or removing the stomach contents. If upper abdominal pain is not relieved entirely by these three measures it should be viewed with a great deal of suspicion as being caused by duodenal ulcer. It has been generally accepted that hyperacidity as shown by a test meal is usually present with duodenal ulcer, but as our experience widens it is found that nearly as many ulcers are present with low or normal free Hcl. content. With a fluoroscopic or plate examination of the barium filled stomach a deformity of the cap or pyloric ring may be found.

The common complications of duodenal ulcer are 1. obstruction, 2. hypersecretion and continued secretion, 3. hemorrhage, 4. perforation, 5. periduodenal inflammation and abscess.

The most frequent complication of ulcer is obstruction. This is caused either by pyloric spasm, acute inflammatory swelling, local peritonitis, or cicatricial stenosis. The symptoms of ulcer with obstruction are the same as those enumerated above except that the pain is apt to last until the next meal, due to the presence of retained food in the stomach. There is usually present distress which awakens the patient around one to two o'clock in the morning and these patients often learn to keep a glass of milk or an alkali by their bedside to relieve the discomfort. The pain is usually more severe where spasm and inflammatory swelling are present than those where the obstruction is due to cicatricial stenosis. In the presence of a high grade obstruction, particularly that due to a cicatricial narrowing of the pylorus, vomiting at night or during the day at the height of the pain occurs. Often these people have learned that emptying the stomach will afford relief and they induce vomiting by various means. The quantity vomited will vary from a few hundred cc. to one or two quarts. The normal fasting stomach contains from ten to fifty cc. of gastric juice and anything over that amount should be viewed with suspicion of some obstruction when the stomach is aspirated seven hours after a meal. In the presence of a high grade obstruction there is often retention of food and secretion over

night and aspiration of the stomach in the morning before water or any food is taken will reveal from a few hundred cc. to as much as a quart of material. The examination of stomach content will often reveal the presence of sarcinae where the obstruction has lasted as long as a week or more. It should be remembered that the taking of alkali over a period of several days will destroy or prevent the formation of sarcinae. Also yeast is apt to be found in large quantities where obstruction is present. Where there is any question of obstruction, in addition to the Ewald test meal, the patient should be given an ordinary full-sized meal and the stomach aspirated seven hours after the completion of the meal. This often reveals the retention of food in the stomach which the Ewald will fail to show. This is not an absolute diagnostic aid for with the presence of obstruction the walls of the stomach often hypertrophy in order to compensate for the increased burden of forcing food through a narrowed outlet. The increased force excited by the stomach is thus sufficient to force most of the food through. This also applies to the emptying of the stomach after barium has been given and the individual examined for the presence of a six or seven hour residue. This type of disturbance is most often revealed by the giving of a solution of soda followed by a solution of tartaric acid, the resulting CO_2 formation dilating the stomach. In the presence of an obstruction lasting for some time there will be present visible peristaltic waves traveling from left to right. In the presence of the normal abdomen not unduly thin due to diastasis recti or other causes this is undoubtedly the most valuable single sign of duodenal obstruction that we have. In our experience whenever we have been able to definitely show visible peristaltic waves, the individual has had obstruction at the outlet of the stomach. There is often more or less loss of weight with the presence of obstruction due to the lack of nourishment.

In the medical management of ulcer with obstruction that devised by B. W. Sippy is the most logical and from it the best success is obtained. In obstruction cases his usual management of alkaline powders and milk and cream alternately is carried out except that each evening, one-half hour after the last powder has been taken the stomach is aspirated, removing all the food and secretion. This is tested for the presence of free Hcl. acid and his experience has been that if the acid is controlled then, it is controlled during the day. If there is any night secretion present the stomach should be aspirated again at 12 o'clock. It is rarely necessary to continue this longer than a few days to two weeks. Occasionally it is nec-

essary to give an alkaline powder between the 9:30 and 11:30 p. m. aspiration and to continue the aspirations over a longer period of time in the presence of a high grade obstruction. In about two weeks after beginning the treatment a motor meal may be given to determine the emptying time of the stomach. Sippy says that the aspirations serve three important purposes: First, the aspiration one-half hour after the last powder is taken removes all food and secretion and lessens the tendency to night secretion and its attending corrosion; second, the aspirations and tests for free acid enable one to maintain an efficient neutralization of the gastric juice with a minimum use of alkali; third, the absence of occult blood upon repeated examinations of the aspirated stomach contents enables one to practically exclude a cancer of the stomach developing upon the site of the ulcer. Sippy has classed the clinical types of pyloric obstruction as first, those which disappear at the end of three weeks' management and 80 to 90 per cent of all cases of pyloric obstruction belong to this type. Obstruction is caused by pyloric spasm and acute inflammatory swelling and it is unwise to conclude at the first examination that a cicatricial stenosis is present where visible peristaltic waves, sarcinae, and retention of food from twelve to thirty-six hours are found, for upon this type of management in one or two weeks the stomach may be found to empty completely six or seven hours after a motor meal. In such circumstances a tissue narrowing of serious grade may be excluded. Second are those cases where the evidences of obstruction do not yield after three weeks of the management previously outlined. In these cases seven hours after the taking of a motor meal from 100 to 300 cc. of food and secretion are still present. Apparently about 15 per cent of all pyloric obstruction cases due to ulcer belong to this type. In this type of case a gastro-enterostomy is indicated for no type of medical management can be expected to relieve an actual scar tissue narrowing of the pyloric outlet.

Probably the next most common complication of ulcer at the outlet is hypersecretion and continued secretion. This is never present except where obstruction is of fairly high grade and has continued over some time. It consists of the stomach pouring out large quantities of secretion after digestion is complete, often causing the patient to vomit quantities of fluid varying from a pint to two or more quarts. The pain is often the most severe experienced, and the patient learns to either induce vomiting or to have ready large quantities of alkali to relieve his discomfort. The most logical cause of its production is that the

retention of food and fluid in the stomach stimulates the production of excessive quantities of gastric juice. The stomach becoming accustomed to pouring out large quantities of secretion it continues to do so even after the retained material may be removed. This action of the stomach is one of the most frequent causes of excessive vomiting and subsequent dehydration following gastro-enterostomy. The treatment of this condition has been outlined previously in the management of obstruction, namely the use of alkalies and aspirations to remove the secretion.

Hemorrhage from a duodenal ulcer is probably a less common occurrence in ulcer than we usually think—about 10 per cent of ulcers developing hemorrhage. There are two clinical groups in such cases: First, those in which the patient has previously enjoyed good health with no digestive disturbances, and second, those with a preceding history of digestive disturbances. The first group is the most difficult to deal with from the diagnostic and therapeutic points of view because a hemorrhage occurring spontaneously with no previous warning is very apt to be due to some other cause than a lesion in the stomach or duodenum. W. J. Mayo says that acute unheralded hematemesis is usually due to some other cause than ulcer. The hemorrhage may be due to a blood dyscrasia as splenic anemia, Bantis disease or polycythemia, or it may be caused by cirrhosis of the liver. Varicosities at the lower end of esophagus may bleed. It also occurs in certain infectious diseases and from various poisons and from cancer.

The treatment of hemorrhage is an emergency treatment as immediate steps must be taken to prevent the reopening of the bleeding vessel. One of the most important factors favoring the cessation of hemorrhage is immobility both of the patient and the stomach. Complete immobility of the patient because it keeps the blood pressure down, immobility of the stomach and duodenum because it prevents dislodgement of a newly formed clot.

Immobility of the patient is secured by keeping him in bed, reassuring him of his condition, and giving him sufficient morphine by subcutaneous injections to keep him drowsy and prevent the physical and mental restlessness otherwise likely to be present. Sometimes a little atropine is added to the morphine to inhibit the secretion of gastric juice.

Immobility of the stomach and duodenum is secured by giving the patient neither food nor drink by mouth. If the patient complains of thirst or shows signs of dehydration, normal salt or glucose solution may be given rectally. If saline so-

lution is given intravenously small quantities should be used because of the danger of raising the blood pressure. Hemorrhage ceases when a firm clot is formed, at the bleeding point. The presence of blood in the stomach calls forth the secretion of gastric juice the same as any other food and danger is present of the clot being digested. To prevent this it is necessary to render the gastric juice inactive by neutralizing as completely as possible all the free HCl acid that is present. For this purpose alkalies must be given which do not stimulate the secretion of more gastric juice or give off large quantities of CO_2 which distends the stomach and stimulates peristalsis. Calcium carbonate is one of the most useful alkalies for this purpose as it has no laxative action, it has two and one-half times the neutralizing power of sodium bicarbonate, it does not stimulate the secretion of gastric juice, and it neutralizes the gastric juice so slowly that whatever gas is given off dissolves in the water present nearly as fast as it forms, so no distension results. One dram of calcium carbonate is given hourly during the day and night for the first twenty-four hours, then as frequently at night as the patient is awake. This is continued until food is begun, when it is replaced by the usual alkaline powders.

The patient should be typed for blood transfusion and a donor should be available at any time if transfusion should become necessary. Fatal hemorrhage rarely occurs except where death occurs during the first hemorrhage, generally due to erosion of one of the main gastric or duodenal vessels with a resulting massive hemorrhage. Transfusion should be done immediately if the Hb. falls below 40 per cent and also where the increase in the Hb. following the cessation of the hemorrhage seems to be slow. This not only causes an immediate rise in the Hb. but also stimulates new blood formation.

Operation for an acute hemorrhage is rarely needed and the general opinion is that the danger of fatality from the hemorrhage is less than the danger of an operation during the hemorrhage. The only indication for operation in the acute stage is in the individual with a chronic ulcer whose arteries are so sclerotic that they are not apt to contract sufficiently to allow clot formation. A study of the statistics does not lead one to the belief that a subsequent operation following hemorrhage is needed for hemorrhage seems to be just as frequent following operation as before.

Perforation is of two types, acute and chronic.

Chronic perforation is seen in cases of deep indurated ulcers, the peritoneal site of the ulcer being found adherent to the liver or pancreas.

The perforation is incomplete in that it is walled off before the peritoneal surface breaks down and fibrous tissue is formed which protects and forms the base of the ulcer. Pain and tenderness on pressure over the affected area, occasionally some rigidity of the abdominal muscles, slight temperature and leucocytosis may be found. The inflammatory reaction around the base of an ulcer may become so great as to produce an abscess either at the site of the ulcer or by drainage abscesses in the liver or subphrenic abscess. These ulcers are usually so extensive that surgical resection or drainage of an abscess is necessary to obtain a cure.

Acute perforation of a duodenal ulcer in the free abdominal cavity is evidenced by sudden severe pain in the epigastrium, this is at first localized and then spreads over the entire upper abdomen. There is an extreme tenderness and rigidity of the abdominal muscles so pronounced as to be called "boardlike." Vomiting may or may not be present. The leucocyte count shows an increase of cells and polynuclears. The temperature is subnormal at first and later rises. The patient is pale and a cold clammy perspiration is often present, the patient showing evidences of profound shock. Unless there is prompt surgical intervention general peritonitis is soon established, the abdomen becomes distended and death follows in a few days. This is the one complication of ulcer where prompt surgical treatment is the only method and is absolutely life saving in the majority of instances if performed in the first twelve hours.

In considering the management of any of these complications of duodenal ulcer there are certain things to be regarded before deciding upon medical or surgical treatment:

First, carcinoma very rarely is present in duodenal ulcer, but is occasionally found in those developing in the pyloric ring. If any reasonable suspicion exists that a carcinoma is developing and there are no contra-indications, an exploratory should be done and the ulcer area resected.

Second, as stated before acute perforation of an ulcer demands immediate surgical relief.

Third, any pyloric obstruction caused by high grade cicatricial stenosis that fail to yield appreciably or at all to accurate ulcer management should be treated surgically if no contra-indication exists.

Fourth, perigastric or periduodenal abscess should be treated surgically.

Fifth, hemorrhage rarely calls for surgical treatment and the results obtained are not better than with medical treatment.

Surgical treatment is probably the wisest method

to employ where complications and sequelae of ulcer may be mechanically relieved. In healing the ulcer surgery can do nothing of consequence except where it is so located that it may be excised, resected or, as advocated by Mayo, reduced in size by cautery or suture. Very few ulcers treated surgically are handled by these means and it would seem advisable to give the patient the benefit of accurate medical management before advising surgical intervention.

Discussion

Dr. James C. Hill, Newton.—Dr. Best has brought to us a very interesting and informative paper as well as an extremely practical one. I wish to review just a few of the points that are of importance in the consideration of this subject.

There is practically no question but that obstruction is the most common and serious complication of duodenal ulcer. As mentioned, this may be due to pyloric spasm, cicatricial stenosis, carcinoma, and peritonitis. About 85 per cent of these obstructions are removed by medical management and dietetic measures in from two to three weeks' time.

As stated, from ten to fifteen per cent of these obstructions are of the cicatricial stenosis type, and because of that fact are usually surgical. Pain in the gastric region lasts longer when due to duodenal ulcer than an obstruction from other causes, but it does not run the disabling course that gastric ulcer runs. The more severe and prolonged the distress the more likely it is that obstruction is present. Pain is greater where inflammatory swelling has taken place about the ulcer. The pain is not so severe when cicatricial stenosis is present. In this condition the patient frequently vomits.

As mentioned by the essayist, the normal fasting stomach contains from 10 to 50 c.c. of gastric juice, and if more than this amount is present one should suspect obstruction. In the presence of obstruction there may be from 100 to 1,000 c.c. of gastric juice in the stomach. If obstruction is not removed after two or three weeks of correct dietetic and medical management, and if seven hours after a motor meal is given 300 to 400 c.c. of food and secretion are aspirated from the stomach, one is justified in assuming that a scar or a condition of tissue narrowing exists in the pyloric region.

I agree with Dr. Best that probably the next most common complication found in obstruction is hypersecretion or continued secretion in the stomach. The obstruction causing this condition is of high grade and usually has existed over a considerable period of time. Excessive secretion may be the cause of severe vomiting. When this condition is present treatment consists of the usual ulcer management, hour feedings, the giving of alkalies, stomach aspiration one-half hour after the last feeding is given in the evening and again if necessary about midnight. Then, if necessary, after the midnight aspiration should follow the use of alkalies.

One or two other complications I will merely mention. Chronic perforation was referred to by the essayist. Acute perforation is always associated with shock. The patient is taken with severe pain and there are present all the manifestations of extreme shock. When dealing with complications of duodenal ulcer one should decide whether or not the stomach empties in seven hours. Is continued hypersecretion present? How high is the acid content of the stomach? Are peristaltic waves present over the gastric region, and if so do they run from left to right? Do aspirations relieve the distress, and if so for how long a time? Can a tumor mass be palpated in the region of the duodenum?

Watch for hemorrhage; be on guard against severe gastric pains and symptoms of shock from perforation. We must remember that a large percentage of cases are relieved by accurate dietetic and medical management.

Dr. Murdoch Bannister, Ottumwa.—What is related in the paper is very true. I wish to call your attention, however, to one statement that has been made—that acute perforation is always accompanied by severe shock. When acute perforation is present it is usually at first accompanied by subnormal temperature which later arises; however, in a few cases of perforation connected with duodenal or gastric ulcer, pulse and temperature will be normal. There will be pain, and with this symptom the concomitant symptom of sweating will appear.

Another point I wish to emphasize is the great sin of trying to treat a duodenal or gastric ulcer by giving alkalies and prescribing a diet in the case of a working patient, for you do him no good by such treatment. Put him to bed if this is possible, otherwise you cannot follow medical and dietary management to best advantage. Give your patient the benefit of medical or surgical treatment and you will not commit the sin of feeding him with alkalies in an attempt to control the pain. Such advice only leads to chronicity and the coming on of complications as described.

Dr. Frederick W. Mulsow, Cedar Rapids.—Dr. Best has, in the time allotted, very thoroughly discussed the complications of duodenal ulcer. I do not know that pain ought to be considered as a complication; notice it as a symptom.

There are a few questions I would like to ask regarding the symptom or complication of pain. Pain helps us in making the diagnosis, and it is the thing that brings the patient to the doctor very often.

First, does location of the pain have anything to do with the pathology?

Second, does the degree of pain bear any relation or give any clue to the pathology? The location of the pain is supposed to be over the duodenum in the right quadrant above the umbilicus, but many times it is up on the right side behind the ribs. It may be to the left, it may be down in the region of the cecum, and I have had patients complain of pain in the back below the scapula.

Dr. J. F. Ritter, Maquoketa.—During the last seven years I have had some peculiar experiences regarding work in connection with duodenal and gastric ulcer. In the treatment of over forty cases by glandular methods, I have failed in establishing apparent clinical recovery in but one case, one of cicatricial stenosis of the pylorus, in which post-mortem proved the diagnosis correct.

In the remainder, in which the Sippy failed to establish permanent relief, resort was had to glandular therapy. Here, the interstitial hormone, secured from male goats three to four months old, was used. By the expression of the serum before puberty, we eliminate the entrance of the question of sex, it containing nothing but the vitalizing ferment which apparently possesses the same or analogous effect on the gastro-duodenal mucosa, as the ovarion-follicular-hormone of the Allen-Pratt-Doisy has been demonstrated to possess on the generative endometrium.

I wish merely to call attention to the fact that the use of the interstitial hormone, in addition to the regular alkaline treatment will in a great many cases relieve the patient and will generally establish clinical recovery, even when alkalization has failed, and not infrequently no further alkaline medication is necessary after two or three doses have been administered. I suggest it is decidedly worthy of further investigation.

Dr. Best (closing).—I wish to thank the gentlemen for the discussion they have given my paper. I agree absolutely with Dr. Bannister that in the medical management of a case of duodenal or gastric ulcer the patient should be in bed, because when he is up and about he is apt to stimulate increased gastric secretion. We cannot hope to cure the patient by having him up and around because first of all he has not learned how to carry out his treatment, and that is the essential factor. A great many people come in and say, I cannot follow out that kind of management, it takes too much time. But if they spend one or two weeks in learning how to take the treatment they can then carry it out very capably at home.

The degree of pain present in these cases may vary all the way from a slight feeling of pressure to most severe lancinating, boring pain. I do not believe the degree of pain is any indication as to the type of ulcer present, size, severity, or any other characteristic, because some of the largest ulcers I have seen have caused the least pain. Very frequently in the presence of advanced cicatricial stenosis the pain is apt to be much less severe than when the obstruction is caused by spasms and inflammatory swelling.

I have had no experience with gland therapy in the treatment of ulcers. My purpose in presenting the paper was to clarify if possible the thought of the general surgeon who may be anxious to operate on these people, particularly in an uncomplicated type of ulcer. I do believe such patients should be given medical management before surgical treatment is instituted.

DIFFERENTIAL DIAGNOSIS OF PULMONARY TUBERCULOSIS, LUNG ABSCESS AND BRONCHIECTASIS.*

F. P. McNAMARA, M.D., Dubuque, Iowa

Acute and chronic suppurative lesions of the lung have been reported with increasing frequency during the last decade. This has been due in part to an increase in their incidence but is largely because of improved diagnosis and especially roentgenologic and bronchoscopic diagnoses. The latter were supplemented by pathologic studies carried on at the time of operation or post-mortem and as a result, today we have a much clearer conception of lung pathology than we did before 1915. In the past many patients with chronic suppurative lesions were diagnosed as being tuberculous. Even today inadequate study of patients with chronic pulmonary lesions will result in similar mistakes. As a correct diagnosis is exceedingly important in regards to the treatment, prognosis and economic status of the patient, it seems desirable to review some of the more important diagnostic features of lung abscess, bronchiectasis and tuberculosis.

Interlobar or encapsulated empyema, mediastinal abscess and lung tumors, benign or malignant, might well be considered in a more exhaustive paper but time prevents. There are several rare diseases of the lung that may simulate tuberculosis and must always be considered in the differential diagnosis. Among them may be mentioned pulmonary syphilis, actinomycosis, blastomycosis, streptothricosis and aspergillosis. Their diagnosis depends upon the demonstration of the specific causative agent and upon the absence of the tubercle bacillus.

In making a diagnosis we utilize the facts derived from a systematic clinical history, a complete physical examination, supplemented by properly directed roentgenoscopic and bronchoscopic studies and by adequate laboratory tests. The above may seem trite but we all know how frequently a history is carelessly taken, how often only a perfunctory physical examination is made, how often laboratory tests are neglected and how often physicians seem to think that it is the X-ray machine rather than the trained physician that makes the diagnosis. Let us first consider some of the evidence that may be obtained from the clinical history.

CLINICAL HISTORY

Pulmonary Tuberculosis: Acute pulmonary tuberculosis may simulate lobar pneumonia but today we are interested in the chronic types which

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make up the vast majority of cases. Chronic pulmonary tuberculosis is an insidious disease; the history may be indefinite, the symptoms mild and often in the mind of the patient at least are not associated with any lung condition. A few patients will come when the history and the poor physical condition of the patient may cause the physician to suspect tuberculosis though he cannot demonstrate very definite lesions in the lung. A great many more will present themselves with fairly well developed and demonstrable lesions. In taking the history the outstanding facts that should be sought for are evidences of possible exposure to tuberculosis, of undue fatigue, loss of strength or weight, a persisting cough, frequent colds or bronchitis, chronic huskiness or hoarseness, pain in the chest or pleurisy pains, evening temperature, hemoptysis, rapid pulse, loss of appetite or indigestion, menstrual disturbance or evidences indicating the possibility of tuberculosis elsewhere in the body such as enlarged cervical lymph nodes, chronic diarrhoea, epididymitis, rectal fistula, et cetera. The above covers most of the essential points and while the story is frequently vague, the alert physician usually gets a clue that points toward the probable diagnosis.

Lung Abscess: Single abscesses may be acute, subacute or chronic and can be divided into several groups according to the cause. Predisposing factors are poor general physical condition, alcoholism, epilepsy and unclean teeth. Anything that inhibits or abolishes the cough reflex, such as anesthesia, coma or post-operative vomiting allows foreign material to reach the lung where abscess may result. An important cause is the aspiration of infected material during operations about the upper respiratory tract especially tonsillectomy and tooth extraction. At times operations in more distant parts of the body may result in septic emboli being set free and thus give rise to lung abscess. Most post-operative abscesses develop within one to four weeks after the operation. In a smaller group a history of the aspiration of a foreign body may be obtained though all too often people never suspect such an event. Injury to the chest wall is another cause of a few cases and the patient may date his condition from the time of the injury. Another small group follow infections such as lobar, influenzal or broncho-pneumonia, scarlet or typhoid fevers and specific questions in regard to those diseases should be asked. The history that is usually obtained indicates that the onset, while it may be gradual, can usually be fixed within fairly definite limits of time. Sometimes it is sudden and a definite date can be set. Many of the symptoms of the subacute or chronic forms

resemble those of the tuberculous patient, i.e., short, hard cough, malaise, fever, chills, loss of weight and strength, blood streaked sputum or hemorrhage and pain in the chest on respiration or coughing. A distinctive feature however is that in lung abscess there is a history of the expectoration of large amounts of pus, usually foul smelling and often evacuated periodically or upon assuming a certain position. Two other conditions other than lung abscess may give a similar history, i. e., rupture of an empyema or of diaphragmatic abscess into a bronchus. Usually the history, X-ray and physical examinations rule them out. Some of the patients give a history of attacks of productive cough with frequent small quantities of sputum followed by intervals of relative freedom from cough and expectoration. Many patients complain of a bad taste in the mouth and of a foul breath and less commonly of a foul sputum. In gangrene of the lung, the patient may cough up thin, dark brown, blood-tinged fluid with a sweet, fetid odor that is very distinctive.

Bronchiectasis: The history may be entirely negative in cases of bronchiectasis, especially in the congenital type. The common causes of acquired bronchiectasis are partial obstruction of a bronchus by semi-solid, inflammatory exudate, stricture caused by repair tissue in chronic infections, notably influenzal pneumonia, chronic bronchitis and whooping cough, or as a result of an irritation such as caused by the gases of warfare, neoplasms, growing inside or pressing from the outside of a bronchus and foreign bodies, metallic or non metallic. Symptoms are often due to the associated infection and depend for their severity upon the virulence of the organisms and the efficiency of the drainage into a bronchus or upon the infection spreading into the surrounding lung. The most prominent symptoms are chronic cough and a purulent sputum. The amount of sputum may vary between 100 and 1000 cc. While it is purulent it is not necessarily foul smelling. It may show streaks of blood and indeed there may rarely be sudden gross hemorrhage causing death. Lemon¹ and his co-workers state that hemorrhage is more common in bronchiectasis than in any other disease of the lung. In spite of the chronicity, the patient often remains in comparatively good physical condition. Hedblom² states that fever, loss of weight and night sweats suggest extension beyond the bronchial walls. The history may indicate a continuous course or it may indicate periodic exacerbations separated by intervals of freedom from symptoms. At times the symptoms are identical with those of an abscess.

PHYSICAL EXAMINATION

The evaluation of physical signs will depend upon the examiner's knowledge of the pathology of each condition. Obviously a consideration of all the possible changes that occur in pulmonary tuberculosis, abscess or bronchiectasis is beyond the scope of this paper. We must limit ourselves to general statements which are true of more or less typical cases. Nevertheless it should be emphasized that tuberculosis can simulate an abscess or bronchiectasis and vice versa, and that you may have more than one of the conditions in the same lung.

In chronic pulmonary tuberculosis the oldest and most marked changes are usually found in the apex of one lung. In favorable cases it may be represented by a fibrosis or calcified scar and often there is a thickened pleura over this part of the lung. In cases where the body is unable to overcome the tubercle bacillus the lesion enlarges. At first a minute focus of coagulative necrosis, it gradually spreads peripherally with central caseation and ultimate softening with cavity formation. As the necrosed area grows in extent sooner or later a blood vessel or a bronchus is involved. In the former instance a tubercle bacillus septicemia results but today we are interested in the ulceration of the bronchus. As a result of the latter the tubercle bacillus is disseminated to the lower parts of the same lung and to the opposite lung. The distribution is not uniform in either lung except in the very rare cases of massive consolidation.

Lung abscesses occur in the lower lobes in almost three fourths of the reported cases. They are usually single but may be multiple. The right lung is the site of infection in two thirds of the cases. The abscess begins as a localized pneumonitis, goes on to necrosis and liquefaction and in some cases to frank cavity formation. The body attempts to localize the lesion with a wall of leucocytes, fibrin and new connective tissue. Outside the wall there is a zone of pneumonitis of variable thickness. If situated near the periphery of the lung there is often an associated acute pleurisy and occasionally the abscess ruptures into the pleural cavity and signs of the pleural exudate may obscure the signs of the primary lesion. Most lung abscesses are in the deeper parts of the lung however and not all of the abscesses form definite cavities and then you simply have signs of a localized area of consolidation.

Bronchiectasis also occurs in the lower portion of the lung in the majority of cases, but may involve the upper lobes. The dilatations may involve a considerable portion of the bronchial tree or only a single bronchus. The dilatations may

be slight or they may be pronounced and they assume a variety of shapes. Infection of the dilated bronchi occurs and it may be confined within them or may extend to the adjacent pulmonary parenchyma. If the infection is virulent it may result in abscess formation but if less virulent the reparative process may result in fibrosis of the lung along the affected bronchi. The pleura may or may not be involved depending upon the site of the bronchiectasis. Occasionally rupture occurs through the pleura with a resulting bronchial fistula and pleural exudate. With the above facts in mind the signs that may be expected on physical examination should be easier to evaluate. As early tuberculosis will hardly cause confusion, we shall consider the tuberculosis to be in the second stage.

In moderately advanced tuberculosis the patient has evidently lost weight, his muscles are flabby and he is pale. Inspection of the chest shows the supraclavicular fossa to be deeper and the clavicle more prominent on the affected side. Expansion is decreased and in women the breast may be definitely smaller on the side of the greater change. Not infrequently there is a notable spinal curvature. Percussion of the chest indicates areas of consolidation separated by air containing tissue. The most marked changes are in the apical region and at this stage there are almost certainly changes in the opposite lung. In massive consolidation the percussion note may be devoid of resonance as in lobar pneumonia, though this is rare. If there are cavities the percussion note will be tympanitic over the cavities. Tactile fremitus and vocal resonance will be exaggerated and the breathing will be broncho-vesicular over the affected areas. If there is massive consolidation the breathing will be bronchial as in lobar pneumonia. If there are cavities the breathing will be amphoric. Rales may be numerous or few depending upon the degree of softening. Usually a pleural friction rub is present and like all the signs is most marked over the upper portion of the lung. A pleural effusion or a thickened pleura may obscure all signs and this is likewise true of lung abscess or bronchiectasis. To sum up, the physical signs indicate the greatest change, usually consolidation, in the apical region with a patchy distribution of consolidated areas separated by air containing areas in the lower lobes of the same lung and in the opposite lung. Occasionally instead of beginning at the apex the primary lesion is at the hilum or in a lower lobe. In such instances there is nothing distinctive in the physical signs.

In acute lung abscess, the patient appears more sick than in tuberculosis but the clinical course of

a chronic abscess is very similar to it. The temperature curves may be similar but in lung abscess it is more likely to be of the septic type than of the intermittent, remittent or continuous types found in tuberculosis. The heart is moderately accelerated in each condition. Respiration is also slightly increased in rate. Often the patients have a poorly cared for mouth. The signs in the chest are those of a localized area of consolidation. If situated deep in a lobe physical signs may be lacking or very indefinite. If the abscess has emptied itself there will be the evidences of a cavity if the cavity is superficial and large enough to be demonstrable. The signs of chronic abscess are those of any chronic inflammation of the lung and cannot be distinguished from tuberculosis. In multiple abscesses the signs are scattered areas of dullness with various types of moist rales and often a pleural friction rub. Rarely are there evidences of cavity formation because the cavities are too small. The signs are like those in many lung conditions and abscesses will be suspected because of a known focus of suppuration or because there is a general septic infection present. The physical signs of gangrene are those of an abscess with rapid formation of a cavity.

The physical signs in bronchiectasis are not distinctive. Often the patients appear in better physical condition than do those with tuberculosis or lung abscess. One sign of some importance, but not characteristic is clubbing of the fingers which occurs more frequently in bronchiectasis than in other conditions. The physical signs in the lung are often limited to a few rales but sometimes every type of rale may be heard. Dullness or tympany with changed respiratory fremitus vary with the extent of the disease, the size of the dilatations and the position of the patient. There may be evidence of cardiac damage long before cyanosis and dyspnea become prominent symptoms.

It will be evident from the above very brief description that upon physical diagnosis alone it would be highly improbable that we could make an exact diagnosis. We must depend upon the other diagnostic aids, the X-ray supplemented by iodized oil in suitable cases, by bronchoscopic examination and finally by laboratory findings to clinch the tentative diagnosis made upon the evidence obtained from the history and physical findings. The X-ray is of the greatest value and no diagnosis of lung disease is complete unless checked by the X-ray examination. The long controversy as to whether the X-ray or clinical diagnosis is most certain or earliest in tuberculosis has no place today. A diagnosis is made

upon all the evidence obtainable and our principal endeavor should be to perfect ourselves in the various methods of obtaining that evidence rather than to quibble over which is most valuable. An occasional visit to the necropsy room will give us all that feeling of humility which is so good for our souls. As pointed out recently by Weingart the only physician whose diagnoses are always correct is the one who never has performed necropsies.

X-RAY EXAMINATION

Without going into any detail there are certain facts that we should expect from the X-ray examination. The X-ray will show the localization of the lesion; its unilocular or multilocular character; whether it is uniform or variable in density; cavity formation with fluid level and whether it contains air; it will show signs of tuberculosis whether alone or co-existing with another infection. Repeated examinations will demonstrate the progress of the lesion. In bronchiectasis it may fail however without the utilization of iodized oil. Unfortunately in tuberculosis the oil has a deleterious effect and should not be used except when the necessity of making a diagnosis is of more importance than the possible aggravation of symptoms. The X-ray examination will also diagnose the presence of opaque foreign bodies by direct methods and by indirect methods may indicate the presence of non-opaque foreign bodies. Its value will be limited, as will that of the physical examination, by a thickened pleura or a pleural effusion and at times by the heart shadow but most of the limitations are being overcome by the various improved technical methods that are being developed almost daily.

BRONCHOSCOPIC EXAMINATION

The bronchoscopic examination is essential in some cases. The bronchoscopist may find a foreign body, a semi-solid exudate, granulation tissue or more rarely a neoplasm which is often the cause of the continuance of the lung condition due to obstruction of a bronchus. He can evacuate the bronchial tree of secretions by suction or excise a piece of tissue for examination and tell definitely the part of the lung from which the pus is coming. He may determine the extent and location of the bronchiectatic cavities, the presence of strictures and from his findings indicate proper treatment. Not infrequently the removal of a foreign body leads to a rapid cure of the abscess.

LABORATORY EXAMINATION

The principal objective of the laboratory examinations is the demonstration of the etiologic

agent or agents. In tuberculosis the sputum may show caseous foci but is otherwise not characteristic grossly. The demonstration of the tubercle bacillus in smears of the sputum is still the most practical method of proving that the lung condition is due to tuberculosis. When the condition is tuberculosis from a clinical standpoint and the sputum examinations are repeatedly negative, a guinea pig should be inoculated. The sputum may show elastic tissue, but it is not characteristic as it is also found in lung abscess and bronchiectasis. The tuberculin test should be used, a negative test being very strong evidence that you are not dealing with tuberculosis. A positive test is of less value as most adults show a positive reaction. The serologic diagnosis has never been perfected but is of some value when properly carried out. Recently a new test on the patient's serum was announced by workers at the Rockefeller institute that promises to be of great value.

As in tuberculosis, the sputum in lung abscess or bronchiectasis may show variable amounts of blood. The sputum of abscess is purulent and may be large in volume. In bronchiectasis the sputum is like that in abscess but upon standing tends to separate into three layers. Each may be foul smelling but this is not necessarily so. In gangrene the sputum is dark brown, thin and has a fetid, penetrating odor that is distinctive.

The organisms present in lung abscess are the pyogenic bacteria, i.e., streptococci, staphylococci, pneumococci and colon bacilli. More than one organism is present as a rule. The same organisms are found in bronchiectasis. In gangrene, saprophytic forms are also present. Not infrequently the fusiform bacilli and spirillae of Vincent's angina are present.

The three conditions show secondary anemia varying of course with the duration and severity of the respective diseases. The anemia is greater in abscess than in bronchiectasis. Tuberculosis shows a leucopenia and the other two almost always show a polynuclear leucocytosis. It varies between fourteen and twenty-five thousands in abscess and between ten and eighteen thousands in bronchiectasis.

CONCLUSION

In conclusion it may be said that the typical case of each condition may offer no great difficulty in diagnosis when adequate studies by the several methods at our disposal are carried out. In an atypical case or where more than one condition is present, the problem may be exceedingly difficult of solution. It may demand a check and counter check on all the facts that had been

determined and these should be correlated into a rational summary. When this is done the great majority of the problems will be solved. In a very few cases there may be doubt as regards the diagnosis after all such studies and then time, an operation or a post-mortem investigation clears it up.

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College of Medicine State University of Iowa

(From the Proceedings of the University
Hospital Medical Society.)

THE EFFECT OF COMPLEMENTAL FEEDINGS UPON THE INITIAL WEIGHT LOSS OF THE NEW-BORN

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The new-born child is subject to a physiological weight loss during the first three or four days of life. In a series of 554 healthy, full-term, breast-fed babies recently studied, this loss, which occurred mostly during the first two days, averaged 6.1 per cent of the birth weight. By the fourth or fifth day, the weight usually started to increase, and the birth weight was regained in approximately nine days.

This early loss of weight in the new-born has been attributed to both mechanical and chemical factors. Among the former are included losses from defecation, urination, respiration, as well as from the regurgitation of material swallowed during the birth process, which together account for a large part of the initial loss. The chemical fac-

tors, which include those having to do more directly with the child's metabolism, are less significant.

During the past two years, we have studied the weight curves of 554 babies to determine the effect of complementary feedings during the pre-lactation period. One group of normal, full-term babies born during this period received one ounce of whole lactic acid milk with added corn syrup after each breast feeding during the first four days of life, while another group received one ounce of water at the same intervals. Both groups were given one ounce of water routinely at 8:00 A. M. and 4:00 P. M. All babies went to the breast every four hours after the first twenty-four hours. For better comparison, the children were divided into groups according to birth weight as follows: 2500 to 3000 grams, 3000 to 3500 grams, 3500 to 4000 grams, and 4000 to 4500 grams. Babies below 2500 grams, classified as premature, were not considered, while the number of children over 4500 grams was too few to justify inclusion.

Table I shows that the 309 babies in all weight groups, who were given the formula complements, did not lose so much weight as the 245 who received only water. The initial weight loss for the former averaged 179.3 grams, as compared with 239.8 grams for the latter group, or approximately 60 grams less. This difference may be attributed directly to the fact that the breast-plus-formula babies were supplied with food as well as with fluid. An average-size new-born loses 170 calories in heat per day, requiring the combustion of a considerable quantity of food, mostly carbohydrate stored during the latter part of intra-uterine life. When food is supplied some of this reserve store is spared.

The time required to regain the birth weight was shorter in the babies given formula, 8.4 days as compared with 10.2 days for the breast-and-water group.

TABLE I
Babies complemented with formula

Group grams	Number of cases	Birth weight grams	Loss grams	Regained birth weight Loss weight per cent day
2500-3000	68	2765	150	5.4 8.6
3000-3500	126	3253	168	5.1 7.9
3500-4000	89	3701	191	5.1 8.2
4000-4500	26	4144	271	6.5 11.8
Average	309	3349	179	5.3 8.4

Babies complemented with water

2500-3000	36	2821	196	6.9 9.1
3000-3500	114	3269	233	7.1 9.9
3500-4000	78	3704	249	6.7 10.7
4000-4500	17	4247	334	7.8 13.5
Average	245	3409	239	7.0 10.2

Table II shows that the percentage gain over birth weight after both 14 and 18 days was uni-

formly higher in those babies complemented with formula, but data beyond this point are not available, since practically all babies were discharged from the hospital by the latter day. Whether or not the formula-fed babies continued to grow at a more rapid rate is therefore problematical.

TABLE II
Rate of gain in 14 and 18 days

Group grams	Formula- complemented		Water- complemented	
	14 days per cent	18 days per cent	14 days per cent	18 days per cent
2500-3000	7.3	12.9	5.7	10.2
3000-3500	4.9	12.9	3.6	7.4
3500-4000	5.1	8.1	2.3	4.5
4000-4500	2.6	4.9	0.7	2.6

It has been suggested that complementary feedings might have some effect upon the amount of milk secreted by the mother, since babies thus fed might nurse less vigorously and so decrease the natural stimulus for lactation, and our data were studied with this in mind. The gain in weight during the week following the day when the birth weight was regained was determined for each group and the results are tabulated in Table III. The breast-and-formula babies averaged a greater gain in weight during this period, indicating no interference with lactation. After the first four days of complementary feedings all babies received nourishment only from the mothers' breasts.

TABLE III
Gain in weight from 5th to 11th day inclusive.

Group grams	Formula-fed grams gain	Water-fed grams gain
2500-3000	207.4	177.7
3000-3500	210.1	202.1
3500-4000	205.8	167.7
4000-4500	224.9	196.5

The effect of previous lactation of the mother upon the initial weight loss of the new-born was also studied and the results are presented in Table IV. Babies whose mothers had not previously nursed lost more weight than those of experienced mothers in both series, but the loss was more significant in those given only water. The earlier onset of lactation in women who have previously suckled children is probably an important factor in determining this difference.

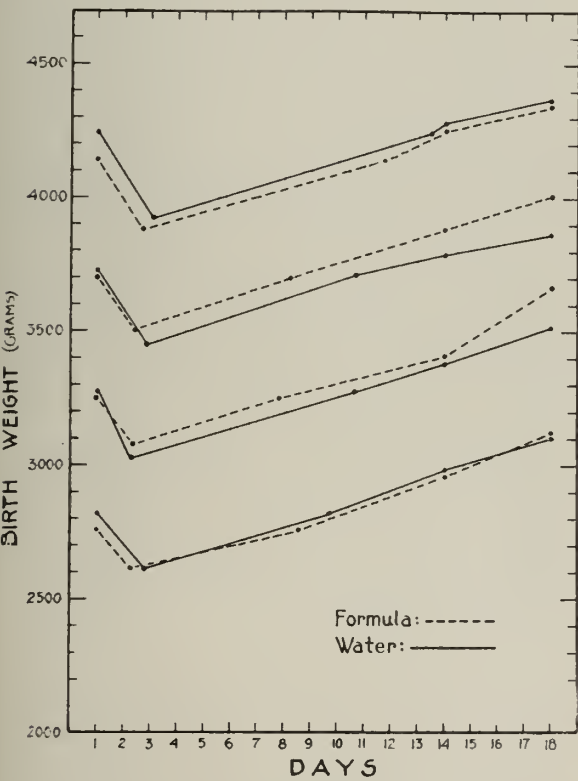
SUMMARY AND CONCLUSIONS

Babies who are given complementary feedings of one ounce of lactic acid whole milk with added corn syrup every four hours during the first four days after birth have a smaller initial weight loss, start to gain weight more quickly, regain their birth weight earlier, and gain more rapidly during the first two or three weeks of life than those who receive complementary feedings of water. The accompanying graph depicts the average

TABLE IV
Initial loss depending upon previous experience of mother

Group grams	Complement	Mothers who had previously nursed				Initial loss grams	Initial loss per cent
		Number of cases	Average birth weight grams				
2500-3000	Formula	26	2758.8			146.5	5.3
	Water	23	2834.3			193.6	6.8
3000-3500	Formula	48	3246.2			153.5	4.7
	Water	49	3301.0			216.7	6.5
3500-4000	Formula	44	3741.1			191.2	5.1
	Water	39	3721.1			248.7	6.6
4000-4500	Formula	15	4150.2			261.5	6.3
	Water	10	4232.8			314.6	7.4
Mothers who had not previously nursed							
2500-3000	Formula	42	2768.5			152.4	5.5
	Water	13	2797.9			199.9	7.1
3000-3500	Formula	78	3257.1			176.4	5.4
	Water	65	3244.8			245.4	7.5
3500-4000	Formula	45	3660.4			190.5	5.2
	Water	39	3687.4			250.5	6.7
4000-4500	Formula	11	4135.8			283.4	6.8
	Water	7	4268.2			361.5	8.4

weight curves of the various groups of newborns. The formula-complemented babies, except in the 4000-4500 grams group, although they started with an average birth weight slightly less than that of the water-complemented babies, were ahead by the eighteenth day, when they were discharged from the hospital.



It can not be argued safely that a baby is healthier because it has gained a little more weight by the eighteenth day of life, although a rapid gain

of weight is the most generally accepted criterion for a healthy child. There is no reason to believe that this earlier and more rapid gain warrants the effort of complemental feedings, even though the babies lose less and gain more readily when thus fed. A certain weight loss is physiological after birth and occurs regardless of whether food is given or not.

THE INDICATIONS FOR CERTAIN SPECIAL DIAGNOSTIC BLOOD STUDIES

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From the Department of Internal Medicine

The blood studies under discussion in this paper are the following: bleeding time, coagulation time, prothrombin time, fragility of red blood corpuscles, clot retractility, constrictor test for petechial hemorrhages, and platelet estimation (volumetrically).

Four hundred thirty-three such studies on various patients in the University Hospital were reviewed. In each case used in the paper, the final diagnosis of the condition was obtained from the chart room. Cases of a similar nature were grouped together and an average of the results of the blood tests found in that condition was determined. In certain instances patients having one symptom in common, as jaundice or as secondary anemia, regardless of the cause, were grouped together. After completing this survey, an attempt was made to select any interesting variations from the normal and to determine in what conditions these tests might be of diagnostic aid.

Forty-eight studies were made on normal patients with the following average results: bleeding time 2.2 minutes, coagulation time 4.8 min-

utes, and prothrombin time 5.9 minutes. In the fragility test, hemolysis began in 42 per cent sodium chloride solution and was complete in 33 per cent. The clot retractility test showed that venous blood, which had coagulated in a test tube, retracted from the wall in two hours. The constrictor test revealed that no petechiae were produced after ten minutes pressure from an arm band which did not obliterate the radial pulse. The platelets averaged .44 volume per cent.

Fifteen studies were made on cases of hemophilia. Four showed prolonged coagulation time and prothrombin time. One had markedly prolonged bleeding time with normal coagulation time and prothrombin time. Another gave increased bleeding time and prothrombin time with normal coagulation time. In none of our cases were we able to get a typical family history. However, with the exception of the family history, the patients had a clinical course typical of hemophilia. Increased coagulation time and prothrombin time with a family history of hemophilia is theoretically required to make the diagnosis.

Twenty-two studies revealed the laboratory findings of purpura hemorrhagica which were: increased bleeding time, non-retractile clot, petechiae with the constrictor test, and thrombocytopenia. Thirteen of these cases had a history of remissions and presented no other explanation for these laboratory results. Nine of the cases having these laboratory findings were made up of purpuras due to chloroma, benzol poisoning, myelomatosis, acute leukemia, and aplastic anemia. The laboratory findings of purpura hemorrhagica are not in themselves sufficient to make a diagnosis. Such a diagnosis can be concluded only when a history of purpura hemorrhagica is obtained and all causes for marked secondary thrombocytopenia ruled out.

Twenty-three studies were made on cases of symptomatic purpura. These included purpura simplex, Schonlein's purpura, and Henoch's purpura. A non-retractile clot was the most constant variation from the normal, but it was found in a large variety of conditions. There was a slight increase in the platelets. The other results were essentially normal.

Twelve of the studies were made on cases of hemolytic icterus. This condition is supposed to show: increased fragility, increased reticulocytes, urobilinogen in the urine, a positive Van den Bergh, and a secondary anemia. Accompanying clinical findings often include an enlarged spleen and liver, a family history of jaundice, and occasionally symptoms of gall bladder disease. All of our cases except one showed an increased fragility. In this case the diagnosis was made because

the other findings were very characteristic of hemolytic icterus.

Three studies were made on patients following splenectomies. A marked temporary increase in platelets was noted.

Forty-seven studies were made on pernicious anemia cases. The results showed the red blood corpuscles to be more resistant than normal and the platelets slightly lowered.

Twelve studies were made on cases of polycythemia vera. The principle finding was a marked increase in the platelets. Six of eleven clot retractility tests were positive.

Ten studies were made on cases of myelogenous leukemia. The platelets were increased early in the disease. Late, there may be a marked decrease in the platelets and a resultant secondary thrombocytopenic purpura.

Fourteen studies were made on cases of lymphocytic leukemia. In contrast to myelogenous leukemia these showed lowered platelets. Four of nine clot retractility tests were positive.

Nine studies were made on acute leukemia cases. These tended to show a secondary thrombocytopenic purpura, that is, increased bleeding time, non-retractile clot, positive constrictor test, and low platelets.

Twenty-two studies were made on cases of lymphoma of the Hodgkins type. The platelets were slightly lower than normal.

Forty-one of the studies were made on cases with obstructive jaundice. The blood corpuscles were more resistant than normal. Since cases of hemolytic icterus often have gall bladder disease, it is well to remember that the fragility test will be modified by two factors when there is bile obstruction. These tests did not show any modification of the bleeding, coagulation, or prothrombin times to explain the tendency to bleed exhibited by jaundiced patients. However, nineteen of the thirty-seven clot retractility tests done showed non-retractile clots.

Nineteen of the tests were done on patients with Banti's Syndrome (thirteen) and patients with cirrhosis of the liver (six). Both conditions showed minor similar changes of bleeding time, fragility, and platelets. In addition, seven of the twelve clot retractility tests in the Banti's Syndrome group were positive.

Five studies were done on cases of sub-acute bacterial endocarditis. Two of the five constrictor tests resulted in petechiae. This may indicate that some of the petechiae which occur spontaneously in this condition are due to changes in the vascular endothelium permitting diapedesis, rather than to embolic phenomena.

Seventeen studies were made on patients com-

plaining of a tendency to bleed. The results were essentially normal, although six of the fifteen clot retractility tests were positive.

Twenty-four studies were made on cases with secondary anemia. An increased resistance in the cells was found.

Numerous other patients were submitted to these tests but all of these showed normal findings. This group included: essential hematuria, chlorosis, myxoedema, infectious mononucleosis, a-granulocytic angina, and menorrhagia.

Bleeding time is a very irregular test due to many uncontrollable factors. Only markedly prolonged bleeding time can be considered significant. In our cases we obtained no information from this test unless it was prolonged to eight minutes or more. It was definitely increased only in thrombocytopenic purpura, primary or secondary.

Coagulation time was never abnormally shortened. It was prolonged definitely in hemophilia only.

Prothrombin time was never abnormally shortened. It was prolonged definitely in hemophilia only.

Fragility of red corpuscles was increased in hemolytic icterus. It was decreased in anemia, either primary or secondary, jaundice, and following splenectomy.

The clot retractility test apparently responded to many factors. The clot was uniformly non-retractile in thrombocytopenic purpura. It was frequently non-retractile in a large variety of conditions. The exact significance of the test has yet to be proved, but it may indicate a tendency to bleed.

The application of the constrictor produced ecchymoses in thrombocytopenic purpura. Petechiae occurred occasionally in a large variety of diseases; however, in most of these cases, the platelets were also found to be lowered.

The platelets may be determined accurately by the volumetric method. They were markedly decreased in thrombocytopenic purpura, and moderately decreased in pernicious anemia and lymphocytic leukemia. They were markedly increased in polycythemia vera, temporarily markedly increased following splenectomy, and moderately increased in myelogenous leukemia.

These tests were an important aid in the diagnosis of: hemophilia, thrombocytopenic purpura, primary or secondary, and hemolytic icterus.

Individual tests may be of value in: pernicious anemia, the leukemias, polycythemia vera, and sub-acute bacterial endocarditis.

In many instances in which the tests have been done, they have shown nothing of significance.

They offer little to explain the statements of those people who say that they have a tendency to bleed easily. They do not explain the bleeding in jaundice. Nothing abnormal can be demonstrated by these tests in cases of essential hematuria or idiopathic menorrhagia.

DR. D. C. STEELSMITH APPOINTED STATE HEALTH COMMISSIONER

Dr. D. C. Steelsmith, former deputy commissioner of health, who has been acting health commissioner since the death of Dr. Henry Albert, was appointed state commissioner of health by Governor Hammill. The appointment was made in August and is effective until thirty days after the General Assembly convenes in January, at which time permanent appointment must be made by the governor and confirmed by the Senate.

ANNUAL BABY HEALTH CONTEST

A physician's son, fifteen-months-old James Madsen De Vault, won the sweepstakes for boys in the baby health contest at the Iowa State Fair this year, with a score of 98.48. The child's father is Dr. Charles H. De Vault, of Vinton, Iowa.

Mrs. S. E. Lincoln, of Des Moines, was superintendent of the baby health department; Dr. James Everett Dyson was medical director and Dr. W. Roger Moore, of St. Joseph, Missouri, acted as consultant. Examinations were held daily throughout the week and \$500 in gold and silver medals were awarded the winners, with silver loving cups to the champions. There were 547 babies registered in this year's contest.

The scoring is based upon six types of tests, as follows: mental, twenty points; eye, ear, nose and throat, fifteen points; oral and dental, ten points; physical, forty-two points; measurements, eight points; consultant, five points.

The object of this annual contest is not primarily to ascertain the highest scoring baby in the state, but is an effort to promote health in all Iowa babies. It is also an attempt to discover whether the healthiest babies are to be found in the cities, the small towns, or the rural communities.

Dr. Dyson reported that the babies in this year's contest were healthier than in any previous year. The importance of vaccination for smallpox and diphtheria was stressed, and babies who had not been vaccinated were penalized.

FORMER IOWAN GOES TO LOS ANGELES FROM MAYO CLINIC

Dr. Verne Carlton Hunt, for several years prominent in the department of surgery at the Mayo Clinic and an associate professor of surgery at the University of Minnesota, is opening an office in Suite 555 of the Roosevelt Building, Los Angeles. His practice will be limited to general and urologic surgery. Dr. Hunt is a native of Iowa, having been born and raised at La Porte City.

STATE HEALTH COMMISSIONER'S PAGE



D. C. Stulsmuth, M.D.



The most prevalent diseases for the month of July were smallpox, measles, whooping cough, scarlet fever and mumps in the order named. With the exception of smallpox, very few cases of communicable disease have been reported when compared with the reports for the earlier months of the year.

SMALLPOX

One hundred eighty-two cases of smallpox were reported, which is 47 cases more than for the same month of 1929. The greatest number of cases (59) was reported from Scott County.

MEASLES

This disease dropped from 360 for the previous month to 78 for last month. It is anticipated that relatively few cases will be reported during the remaining months of this year.

WHOOPIING COUGH

While whooping cough is included in the "most prevalent," yet there were only 61 cases reported. This is 2 cases more than last month but 76 less than for the same month last year.

SCARLET FEVER

Thirty-six cases of this disease were reported, compared with 94 cases last year.

MUMPS

There were 32 cases of mumps as against 31 a year ago.

TYPHOID FEVER

Only 7 cases of typhoid fever were reported compared with 15 for the same period of 1929. These 7 cases do not indicate the true "attack rate" since they do not include all of the cases which were infected in Iowa but which became ill after return to their homes in another state.

An ambulatory case of acute typhoid fever in a girl who was on kitchen police at a girls' camp which was sponsored by an out-of-state organization was found to be responsible for 34 cases and

2 deaths among sixty-odd girls who attended the camp. Four of the campers were Iowa girls but only two of them are ill at home. The other two are sick in another state. Adults and children alike should be immunized against typhoid and diphtheria and protected against smallpox by vaccination before they attend summer camps.

Since many boys and girls of Iowa attend summer camps sponsored by 4-H Clubs, Girl and Boy Scouts, Y. M. and Y. W. C. A., etc., and since the benefits expected to accrue from such outings pertain to education and health, the State Department of Health has in preparation certain rules and regulations governing such camps, which when put into effect will tend to safeguard the attendants.

It is realized that much of the present typhoid fever and dysentery appears either in epidemic form from carelessness or accident in the handling of milk or other foods or as "Vacation Typhoid."

The following suggestions will probably be incorporated in the rules and regulations applying to summer camps.

1. All applicants for summer camps should be advised of the benefits of immunization against typhoid fever, diphtheria and smallpox.
2. All summer camps should be put in sanitary condition and thus maintained.
 - (a) Drinking water should be safe.
 - (b) Toilet facilities should be sanitary.
3. A careful and complete physical examination before entrance to camp should be mandatory. The applicant should be free from any symptoms of communicable disease.
4. All attendants, counselors, instructors and officials associated in any manner with the food supply should have a careful physical examination including laboratory examination for the determination of carriers of typhoid fever and diphtheria.
5. All camps should have regular sanitary inspection.

The JOURNAL of the Iowa State Medical Society

ISSUED MONTHLY

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Nephrology

I. BRIGHT'S DISEASE

Since the time of Bright, the renal diseases which are characterized by diffuse proliferative or degenerative changes in the kidney parenchyma, have been extensively studied; yet much confusion exists about many of the phases of these disorders which are now grouped together under the term Bright's Disease or simply nephritis. The lack of clarity is distressingly evident when one notes the different conceptions which writers on renal diseases held about such commonly employed terms as glomerular, parenchymatous, or chronic interstitial nephritis, nephrosis, uremia, and cardio-vascular-renal disease; yet these diseases are sufficiently common to be met with by every general practitioner of medicine; hence, the average physician must secure for himself a precise knowledge of the pathology of these disorders, lest he lose that faith in his own therapeutic procedure which is so essential to the successful practice of his art.

The discussion which follows deals with the various phases of these diseases and the views expressed represent one individual's attempt at obtaining a logical conception of them. The views are published with the hope that they may be of some assistance to other practitioners of medicine who seek their way through this renal maze. The statements made are based upon some familiarity with the present day literature of nephritis and upon a fair amount of bedside and dead-house experience. The goal aimed at has been clarity and brevity, hence some of the statements may smack somewhat of didacticism.

The existing confusion is partially due to erroneous notions from the past, and partially to the rather fragmentary knowledge of kidney physiology and of physiologic chemistry which existed until now. Fortunately, the brilliant researches of Krogh and his pupils,¹ of Cushny,² and of Richards³ have vastly increased our knowledge of these two fundamental phases of human metabolism and the recently acquired knowledge should make it possible to obtain a clearer conception of Bright's Disease. The presentation of such a conception has been attempted here.

ANATOMY AND PHYSIOLOGY

The function of the kidney is twofold. On the one hand, the kidneys maintain the water balance; on the other, they eliminate metabolites, principally those of protein and acid nature. To accomplish this purpose, the kidneys are supplied with about twenty times as much blood, volume for volume, as is any other organ in the body. The function is carried on by means of the renal units, and it is of importance to bear in mind that there are over two times as many of these as are actually needed, so that renal insufficiency sets in only after the loss of over half of the renal capacity.

A renal unit consists of an epithelial and of a vascular part. The epithelial part is made up of the distal and proximal convoluted tubules, the loop of Henle, and Bowman's capsule. The vascular part consists of an entering arteriole, the efferent artery, which breaks up into a tuft of capillaries; the glomerulus that fills the funnel-like part of Bowman's capsule, and then leaves as the efferent artery to break up into a second set of capillaries around the convoluted tubules. This capillary network constitutes the sole blood supply of the convoluted tubules, hence, diminution of blood-flow through the efferent artery or the glomerulus will immediately affect adversely the highly specialized sensitive tubular cells.

At the present time the consensus of opinion is that the kidney function consists of a pure filtration through the glomerulus, and of a selective reabsorption by the tubules. By this process, about sixty liters of filtrate pass daily through the glomeruli, and during the leisurely meandering of this fluid through the convoluted tubules, the thin filtrate is concentrated to one or two liters before it becomes urine. It is also apparent that the known physical laws of osmosis and diffusion will not explain the concentration of the urine; hence living activity on the part of the tubular cells must be assumed. Workers in this field of research are not in full agreement as to whether the tubular cells carry substances from the blood into their lumina or from the filtrate back into the

blood, but this is an academic quibble of no clinical importance. The significant thing to remember is that renal insufficiency may be due to failing filtration, and also to faulty reabsorption—or to both. Hence the kidneys may fail to maintain the water balance; to eliminate waste products, or both.

DANIEL J. GLOMSET, M.D., Des Moines

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(Editor's Note: This is the first of a series of articles on renal disease which Dr. Glomset is writing for the JOURNAL. The second article of the series will appear in the October JOURNAL.)

A LAYMAN VIEWS MEDICAL ETHICS

During the past few years there has been considerable discussion in medical literature relative to a revision of the ethical code of physicians. To some this code appears obsolete and in no sense in keeping with the modern trend in other business and professional fields. The section having to do with medical advertising has perhaps been most severely criticized. It is not the purpose of this editorial, however, to discuss the usefulness of our present code of ethics, but rather to point out that the position of respect and prestige which is held by the conscientious physician is in itself evidence that whether a published ethical code is acceptable or not, the basic principles of such a code will manifest themselves with great certainty in the practice of such a physician.

The following editorial, taken from the *Tulsa Daily World*, appropriately illustrates the thought and at the same time implies a respect and commendation for the ethical principles of the physician:

"An instance of practical heroism came out at a Birmingham hospital recently, when a physician, performing a Caesarean operation, fell back from a heart attack and said to another physician, 'Doctor, take care of my patient.' These were simple, memorable words. The doctor was in the prime of life and probably had no premonition of his end. The last words were almost involuntary, in line with severe training and rigorous self-discipline for many years.

"Just two elements stood out—interest in the work at hand and pride in his profession. He did not say, 'Here, finish this up,' or 'Bill, you take the job,' nor did he indulge in any heroics or regrets. 'Doctor, take care of my patient,' was eloquent in its brevity and completeness and the observance of ethics. We sometimes sneer at physicians' ethics, and members of the profession

severely overdo this thing of ethics. We laugh at their persistent use of the term 'doctor' among themselves and to all others, but in the light of this example we must admire the discipline and fortitude which call for loyalty and correct expression in the last, dying gasp."

PHYSICIANS VICTIMS OF "BADGER GAME"

At the last meeting of the executive committee of the Medical Society of the State of New York, a warning was issued to the profession against a peculiarly malicious application of the time-honored "badger game" as operated against physicians. It was pointed out that in its operation, a "sick" woman telephones for a doctor to come to her hotel room. While he is giving her a physical examination which perhaps causes him to remove his coat and roll up his sleeves, in dashes the outraged husband. The society advises doctors either to refuse to visit unknown female patients, or to take along a witness, if no one else, the hotel clerk.

In Des Moines the "badger game" has been operated with still another modification. It appears that certain female narcotic addicts have used the principle involved to secure narcotics. It has come to our attention that on several occasions certain women have telephoned for a physician, complaining of extreme pain simulating gall-stone colic. The physician answering this call has been advised that these attacks have occurred with considerable frequency, and for this reason large amounts of morphine are required to control the excruciating pain. If the physician refuses to administer the morphine as suggested, the woman threatens to rouse the neighbors in the apartment or hotel and claim assault at the hands of the physician.

It is well that physicians be acquainted with these practices and being warned, be fore-armed.

LAW ENFORCEMENT ACTIVITIES

In addition to work being done in connection with the Baker case at Muscatine, Mr. Herman Carlson, State Department of Health inspector in charge of law enforcement, has recently been responsible for instituting action in three important cases which will be of interest to JOURNAL readers.

EX-STONE CUTTER GIVES CONSENT TO COURT INJUNCTION

"Dr." (?) Howard I. M. Hutchins, 600 East Pierce Street, Council Bluffs, Iowa, who claims to be a "divine healer," "magnetic healer" or "touch healer," was enjoined Wednesday, August 6th, by District Judge J. S. Dewell, from the further practice of medicine without a state license.

(Continued on page 434)

Swiss Medicine

N. BOYD ANDERSON, M.D., Des Moines

When one crosses the Swiss frontier, he is immediately impressed by numerous factors, some even to the point of being paradoxical. However, one cannot help being imbued with the Swiss enthusiasm of national spirit; their inborn love for the towering peaks and crystal lakes; their sturdy children and red-cheeked grown-ups. In fact it was the only country where I would have liked "to just settle down and live"; to start and end each day with the panorama of the Jungfrau range, all bright and crisp in the morning, majestic and powerful at midday, soft and rosy as the sun goes down.

Naturally, as readers of this article, you will not be interested in the physical aspect of this mountainous country, but rather in things medical. The pre-eminent medical features are the amount of and their method of treating thyroid disorder, and their use of heliotherapy in tuberculosis.

To discuss the latter first: The first great experiment with heliotherapy in tuberculosis was made at Leysin, a small Swiss village high up in the mountains, overlooking the Rhone Valley and surrounded by snow covered peaks. It was begun by Rollier, a pupil of Kocher, in 1903. His results were brilliant and the importance of the studies was soon recognized. This little obscure village became a Mecca for heliotherapy and it was soon visited by physicians from all corners of the globe. Clinics were organized everywhere; in fact the entire Swiss nation was economically affected during the next few years. The climate, location, topography and other features of Switzerland are ideal for heliotherapy. Plenty of sunshine, rarified pure air, temperate climate, sheltered mountain sides, give the best combination of heat, light, and chemical rays which afford therapeutic results. Rollier, in all sense of fairness to his experiment, claimed that the treatment could be carried out in any part of the world; however, from personal observation, I feel that my own morale and desire to get well would be more enhanced under the conditions just described than any place I know of, although, of course, one must have financial means.

The medical man always thinks of Switzerland in terms of goiter, and indeed his thoughts are not far amiss, for one finds that 60 per cent of the inhabitants are potential sufferers from thyroid disorders. The goiter problem is as much a part of their national life as their love of freedom, their Alps and their famous Brown Swiss cattle. It is not only a medical problem, but a

social, economic and military one as well. What place in society can the cretin, or partial cretin, take? Is he to be given the right of ballot and conduct his own affairs? What criterion must one use to determine these rights of citizenship? Practically all cretins are an economic liability on the part of the state. Their physical strength does not permit them to stand any hard labor. Every Swiss male must serve a stipulated time each year in military service. Naturally those with thyroid disorders are unable to stand the stress of Alpine maneuvers, hence the military authorities depend much upon the examinations and reports of the military surgeon, who, by the way, is a highly trained man. Professor De Quervain has served his time, but at present his entire staff is of military age.

One of the very interesting points of study of the goiter problem among the Swiss is its distribution and also its variations in histology according to the region from whence it comes. Around the periphery of Switzerland and the more level regions the diffuse colloid goiter, with and without hyperthyroidism, predominates. In the more mountainous areas, the toxic goiter is the exception and the nearer one approaches the center of an endemic area, the less he meets with colloid goiter. It is replaced by the colloid-poor, diffuse parenchymatous goiter in childhood and the adenomatous type with its degenerative forms in adults.

Etiologically, I became firmly convinced that the causative factors were protean and overlapping, but just as you feel that you have established a direct cause, something happens to upset your ideas and ruin a carefully worked out problem. For example, the river Aare, which flows through Bern, divides the cantons of Bern and Sestigen and then cuts through the canton Thun. This valley gets the same rainfall throughout, has the same sunshine and its people use the same food. Bern has on the average thirty-five persons per hundred with goiter, Sestigen forty and Thun fifty or sixty per hundred. You cross the north boundary of Bern and enter Fraubrunner, with over sixty per hundred. It is no wonder that one gets the headache when he studies etiology and its relationship to this goiter belt, but the study has a fascination that seems to hold you.

Professor Asher, in the Department of Physiology, has been carrying on for years certain cretinism and goiter experiments and today is just as enthusiastic as he was years ago. De Quer-

vain, who no doubt is one of the greatest authorities on goiter, is a tireless worker with the problem which affects so many of his people. Even Herr Jesser, a fifty-three year old cretin, who has been in the Insal Hospital for thirty years, has had countless venous punctures, metabolic readings, with and without various drugs, in and out of air pressure chambers, and has been a walking delicatessen when it comes to diet tests, has certainly added his worth to the common knowledge of goiter.

For several years there has been going on in Switzerland, as well as in France, Austria and northern Italy, an attempt at the prophylaxis of goiter with the use of iodine. The use of iodine is entirely empirical. The theory of the causation of goiter through deficiency of iodine cannot be accepted; first, because even where iodine is present in excess (as on the seacoast) goiter may develop, and second, iodine deficiency causes atrophy, not hypertrophy. This particular halogen is merely some sort of an antidote to goiter, as is quinine to malaria. Deficiency of quinine does not give rise to malaria; neither does a lessened amount of iodine give rise to goiter. The prophylaxis of goiter in the schools is by means of tablets containing 1 mg. of iodine, given daily up to a certain age. Iodized salt has come into favor and constitutes an experiment which has a large range of possibilities. The dose in Switzerland is 0.5 gm. of K.I. per 100 kg. of salt.

Toxic manifestations are rare on the continent, where as in our own country, it is quite prevalent. They have the cretin and we do not. Is goiter an older disease with them, and are we now in a biological phase which they have passed through centuries ago, or vice versa? The surface of the problem has only been touched.

LAW ENFORCEMENT ACTIVITIES

(Continued from page 432)

Investigation by Herman B. Carlson, Director of Law Enforcement Division of the State Department of Health, revealed that Hutchins has been engaged in the diagnosing of disease in Council Bluffs for more than a year. He prescribed treatment that he termed "divine healing" or "magnetic healing." His fee for the treatment of ordinary diseases was \$1.00. For cancer treatments the fee was \$2.00. According to Hutchins' own admission, he has treated an average of about fifteen patients each day for the year he has been practicing in Council Bluffs, and had practiced "divine healing" for nearly two years at Grand Island, Nebr., before coming to Council Bluffs. His method, according to witnesses, was to rub

the patient's back and neck after diagnosis. He is also known to have applied saliva from his own mouth to that of a patient and rubbing the lesion where the patient had a growth on the lip.

He formerly was a stone mason and marble cutter and practiced the "healing" in the evenings. Mr. Carlson advised him to stick to the stone trade hereafter. When Hutchins was taken into custody at his office, he asked for permission to take with him a certificate that hung on the wall. It was granted. The certificate authorized "Dr." (?) Hutchins to "practice spiritualistic healing in the State of Massachusetts." Hutchins declared that an attorney had advised him the certificate authorized him to practice "divine healing" in Council Bluffs.

STATE SEEKS TO ENJOIN HECKMAN

Court action to enjoin Daniel Heckman and Mary Heckman, operators of the Heckman Sanitarium, 115 West Fourth Street, Ottumwa, Iowa, from the practice of medicine and surgery, as well as chiropractic, was started August 13th by the filing of a petition and amendment in the District Court of Wapello County.

In asking for the permanent injunction against the operators of the sanitarium, the petition claims that the defendants have been practicing the named professions without licenses as issued by the State Department of Health.

Herman B. Carlson, Director of Law Enforcement, State Department of Health, secured several affidavits to the effect that Daniel Heckman and Mary Heckman, his wife, had been and were violating the medical and chiropractic practice acts of this state. Neither Mr. or Mrs. Heckman are licensed to practice medicine or chiropractic in this state.

ACTIONS AGAINST NAPRAPATHIS

Petition by the State of Iowa was filed in Linn County District Court, August 13th, asking that Banner Howard, 318 Cedar Rapids Savings Bank Bldg., Cedar Rapids, Iowa, be enjoined from the further practice of medicine and surgery in this state without a license. Herman B. Carlson, Health Department Inspector, secured the necessary evidence to maintain the action by the state.

On August 14th, petition by the State of Iowa was also filed in Des Moines County District Court, asking that Harry Walter Harmer, Elk's Building, Burlington, Iowa, be restrained from the further practice of medicine without a license. Carlson also secured the evidence in this case.

Naprapathy is a system of medicine which attributes all disease to disorder in the ligaments and connective tissue. Naprapaths have an association with headquarters in Chicago.

PROGRAM

International Assembly of the Inter-State Post-graduate Medical Association of North America

MINNEAPOLIS, MINNESOTA

October 20th, 21st, 22nd, 23rd, 24th, 1930

Monday, October 20th

7:30 A. M.

Diagnostic Clinic (Surgical).

Dr. Hugh Cabot, Consulting Surgeon, Mayo Clinic, Rochester, Minnesota.

Diagnostic Clinic (Oto-Laryngological).

Dr. Samuel J. Kopetzky, Professor of Otology, New York Poly-clinic Medical School and Hospital, New York, N. Y.

Diagnostic Clinic (Surgical).

Dr. Alfred T. Bazin, Professor of Surgery, McGill University Faculty of Medicine, Montreal, Canada.

Diagnostic Clinic (Gynecological).

Dr. John O. Polak, Professor of Obstetrics and Gynecology, Long Island College Hospital, Brooklyn, N. Y.

Intermission for Review of Exhibits

Diagnostic Clinic (Surgical).

Dr. Donald C. Balfour, Professor of Surgery, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minn.

Motion Talking Picture: "Caesarean Section."

Dr. Joseph B. DeLee, Professor of Obstetrics, Northwestern University Medical School, Chicago, Ill.

Picture presented by

Dr. M. Edward Davis, Assistant Professor of Obstetrics and Gynecology, Rush Medical College of the University of Chicago, Chicago, Ill.

Noon Intermission

Diagnostic Clinic (Medical).

Dr. Henry A. Christian, Professor of the Theory and Practice of Physic, Harvard University Medical School, Boston, Mass.

Diagnostic Clinic (Surgical).

Dr. William D. Haggard, Professor of Clinical Surgery, Vanderbilt University School of Medicine, Nashville, Tenn.

Obstetrics

Address: "The Composition of the Blood in Pregnancy with Special Relation to the Calcium Content."

Dr. Otto H. Schwarz, Professor of Obstetrics and Gynecology, Washington University School of Medicine, St. Louis, Mo.

Address: "Pregnancy in the Presence of Uterine Tumors."

Dr. Edmund B. Piper, Professor of Obstetrics, University of Pennsylvania School of Medicine, and Graduate School of Medicine of the University of Pennsylvania, Philadelphia, Pa.

Address: "An Analysis of One Thousand Consecutive Labors with the Child Presenting in an Obliquely Posterior Position."

Dr. John W. Williams, Professor of Obstetrics, Johns Hopkins University School of Medicine, Baltimore, Md.

Intermission for Review of Exhibits

Obstetrics (Continued)

Address: "The Toxemias of Pregnancy from the Standpoint of the General Practitioner."

Dr. P. Brocke Bland, Professor of Obstetrics, Jefferson Medical College of Philadelphia, Philadelphia, Pa.

Address: "Prenatal and Postnatal Care in Obstetric Practice."

Dr. William B. Hendry, Professor of Obstetrics and Gynecology, University of Toronto Faculty of Medicine, Toronto, Canada.

Address: "Clinical Types of Nephritis."

Dr. Henry A. Christian, Professor of the Theory and Practice of Physic, Harvard University Medical School, Boston, Mass.

Address: "Visceral Pain."

Dr. Robert D. Rudolf, Professor of Therapeutics, University of Toronto Faculty of Medicine, Toronto, Canada.

Address: "The Relationship of Disorders of the Digestive Tract to Anemia."

Dr. William B. Castle, Assistant Professor of Medicine, Harvard University Medical School, Boston, Mass.

Dinner Intermission

7:00 P. M.

Oto-Laryngology

Address: "Tonsillectomy—When?"

Dr. Fielding O. Lewis, Professor of Laryngology, Jefferson Medical College of Philadelphia, Philadelphia, Pa.

Address: "Acute Systemic Infections of Otic Origin."

Dr. Samuel J. Kopetzky, Professor of Otology, New York Poly-clinic Medical School and Hospital, New York, N. Y.

Address: "The Salivary Glands."

Dr. William V. Mullin, Head of the Department of Oto-Laryngology, Cleveland Clinic, Cleveland, Ohio.

Address: "Cardiospasm."

Dr. Harris P. Mosher, Professor of Laryngology, Harvard University Medical School, Boston, Mass.

Address: "Surgery of the Pharynx."

Dr. Arnold Schwytzer, St. Paul, Minn.

Address: "The Treatment of Varicose Veins."

Dr. Alfred T. Bazin, Professor of Surgery, McGill University Faculty of Medicine, Montreal, Canada.

Address: "The Relative Values of Irradiation and Operation in the Treatment of Uterine Tumors."

Dr. John O. Polak, Professor of Obstetrics and Gynecology, Long Island College Hospital, Brooklyn, N. Y.

Address: "Non-Operative Treatment of Retroversion of Uterus Especially in Connection with Pregnancy."

Dr. George H. Ryder, Clinical Professor of Obstetrics, Columbia University College of Physicians and Surgeons, New York, N. Y.

Tuesday, October 21st

7:30 A. M.

Diagnostic Clinic (Surgical).

Dr. Edward W. Ochsner, Professor of Surgery, Tulane University of Louisiana School of Medicine, New Orleans, La.

Diagnostic Clinic (Urological).

Dr. William E. Lower, Director, Cleveland Clinic Foundation: Associate Professor of Genito-Urinary Surgery, Western Reserve University School of Medicine, Cleveland, Ohio.

Diagnostic Clinic (Surgical).

Dr. Carl A. Hedblom, Professor of Surgery, University of Illinois College of Medicine, Chicago, Ill.

Diagnostic Clinic (Urological).

Dr. William F. Braasch, Professor of Urology, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minn.

Intermission for Review of Exhibits

Diagnostic Clinic (Medical).

Dr. Harlow H. Brooks, Professor of Clinical Medicine, University and Bellevue Hospital Medical College, New York, N. Y.

Diagnostic Clinic (Pediatric).

Dr. Alan G. Brown, Associate Professor of Pediatrics, University of Toronto Faculty of Medicine, Toronto, Canada.

Diagnostic Clinic (Surgical).

Dr. Dallas B. Phemister, Professor of Surgery, Rush Medical College of the University of Chicago, Chicago, Ill.

Noon Intermission

Diagnostic Clinic (Urological).

Dr. William C. Quinby, Clinical Professor of Genito-Urinary Surgery, Harvard University Medical School, Boston, Mass.

Diagnostic Clinic (Surgical).

Dr. Irvin Abell, Clinical Professor of Surgery, University of Louisville School of Medicine, Louisville, Ky.

Address: "The Causes and Treatment of Some of the Circulatory Failures in Surgery."

Dr. Dallas B. Phemister, Professor of Surgery, Rush Medical College of the University of Chicago, Chicago, Ill.

Urology

Address: "Renal Tumors."

Dr. William C. Quinby, Clinical Professor of Genito-Urinary Surgery, Harvard University Medical School, Boston, Mass.

Address: "Silent Lesions of the Genito-Urinary Tract."

Dr. William E. Lower, Director, Cleveland Clinic Foundation: Associate Professor of Genito-Urinary Surgery, Western Reserve University School of Medicine, Cleveland, Ohio.

Address: "Stricture of the Ureter."

Dr. William F. Braasch, Professor of Urology, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minn.

Address: "Transplantation of the Ureters."

Dr. Robert C. Coffey, Clinical Professor of Surgery, University of Oregon Medical School, Portland, Ore.

Address: "Tuberculous Disease of the Kidney."

Mr. Henry Wade, F.R.C.S., Surgeon, Royal Infirmary, Edinburgh: Senior Lecturer in Clinical Surgery, University of Edinburgh, Edinburgh, Scotland.

Respiratory Tract

Address: "The Treatment of Pneumonia."

Dr. Alvah H. Gordon, Associate Professor of Medicine, McGill University Faculty of Medicine, Montreal, Canada.

Address: "The Surgical Treatment of Pulmonary Tuberculosis."

Dr. Carl A. Hedblom, Professor of Surgery, University of Illinois College of Medicine, Chicago, Ill.

Address: "The Treatment of Empyema."

Dr. Edward W. Ochsner, Professor of Surgery, Tulane University of Louisiana School of Medicine, New Orleans, La.

Dinner Intermission

7:00 P. M.

- Address: "The Choice of Anesthesia with Particular Reference to the Rights of the Patient."
Dr. Hugh Cabot, Consulting Surgeon, Mayo Clinic, Rochester, Minn.
 Address: "The Periodical Physical Examination."
Dr. Harlow H. Brooks, Professor of Clinical Medicine, University and Bellevue Hospital Medical College, New York, N. Y.

Esophagus and Stomach

- Address: "The Treatment of Gastric and Duodenal Ulcer."
Dr. Donald C. Balfour, Professor of Surgery, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minn.
 Address: "Surgical Aspects of Chronic Dyspepsia."
Dr. Irvin Abell, Professor of Surgery, University of Louisville School of Medicine, Louisville, Ky.
 Address: "The Practical Control of Gastric Motility."
Dr. T. Wingate Todd, Henry Wilson Payne, Professor of Anatomy, Western Reserve University School of Medicine, Cleveland, Ohio.

- Address: "The Location of Metastases from the Genito-Urinary Tract and from the Thyroid Gland."
Dr. Bernard H. Nichols, Head of the Department of Roentgenology, Cleveland Clinic, Cleveland, Ohio.
 Address: "Abdominal Surgery and the General Practitioner."
Dr. William D. Haggard, Professor of Clinical Surgery, Vanderbilt University School of Medicine, President of the Interstate Postgraduate Medical Association of North America, Nashville, Tenn.

Wednesday, October 22nd

7:30 A. M.

- Diagnostic Clinic (Pediatric).
Dr. Isaac A. Abt, Professor of Pediatrics, Northwestern University Medical School, Chicago, Ill.
 Diagnostic Clinic (Surgical).
Dr. Charles H. Mayo, Associate Chief of Staff, Mayo Clinic; Professor of Surgery, University of Minnesota, Graduate School of Medicine, Rochester, Minn.
 Diagnostic Clinic (Medical).
Dr. Elliott P. Joslin, Clinical Professor of Medicine, Harvard University Medical School, Boston, Mass.
 Diagnostic Clinic (Surgical).
Dr. John B. Deaver, Emeritus Professor of Surgery, University of Pennsylvania School of Medicine, and Professor of Surgery, Graduate School of Medicine of the University of Pennsylvania, Philadelphia, Pa.

Intermission for Review of Exhibits

- Diagnostic Clinic (Pediatric).
Dr. Fritz B. Talbot, Clinical Professor of Pediatrics, Harvard University Medical School, Boston, Mass.
 Diagnostic Clinic (Surgical).
Dr. Nathaniel Allison, Professor of Surgery, Rush Medical College of the University of Chicago, Chicago, Ill.
 Diagnostic Clinic (Surgical).
Dr. Dean D. Lewis, Professor of Surgery, Johns Hopkins University School of Medicine, Baltimore, Md.

Noon Intermission

- Diagnostic Clinic (Surgical).
Dr. John F. Erdmann, Professor of Surgery, New York Postgraduate Medical School, New York, N. Y.
 Address: "The Eye-Grounds in General Diagnosis." The Joseph Schneider Foundation Presentation.
Dr. Frank E. Burch, Professor of Ophthalmology and Otolaryngology, University of Minnesota School of Medicine, Minneapolis, Minn.
 Address: "The Treatment of Hernia."
Dr. John B. Deaver, Emeritus Professor of Surgery, University of Pennsylvania, School of Medicine, and Professor of Surgery, Graduate School of Medicine of the University of Pennsylvania, Philadelphia, Pa.
 Address:
Dr. A. H. M. J. Van Rooy, Professor of Obstetrics and Gynecology, Medical Department of the University of Amsterdam, Amsterdam, Holland.
 Address: "Psychoses of Different Age Periods."
Dr. William A. White, Professor of Psychiatry, George Washington University Medical School, and Professor of Mental and Nervous Diseases, Georgetown University School of Medicine, Washington, D. C.

Intermission for Review of Exhibits

Fractures

- Address: "Operative Treatment of Fractures."
Dr. Charles L. Scudder, Assistant Professor of Surgery, Harvard University Medical School, Boston, Mass.
 Address: "Fracture of the Shoulder."
Dr. Paul B. Magnuson, Assistant Professor of Surgery, Northwestern University Medical School, Chicago, Ill.
 Address: "Fractures Involving the Foot and Ankle Joint."
Dr. Fraser B. Gurd, Lecturer in Surgery, McGill University, Faculty of Medicine, Montreal, Canada.
 Address: "Infections and Their Treatment."
Dr. Dean D. Lewis, Professor of Surgery, Johns Hopkins University School of Medicine, Baltimore, Md.

Dinner Intermission

7:00 P. M.

- Address: "Relationship of the Eye to General Disease."
Dr. Charles H. Mayo, Associate Chief of Staff, Mayo Clinic; Professor of Surgery, University of Minnesota, Graduate School of Medicine, Rochester, Minn.
 Address: "Unclassified Glycosurias—Their Significance and Outcome."
Dr. Elliott P. Joslin, Clinical Professor of Medicine, Harvard University Medical School, Boston, Mass.

Pediatrics

- Address: "Fetal Peritonitis and Sequelae."
Dr. Isaac A. Abt, Professor of Pediatrics, Northwestern University Medical School, Chicago, Ill.
 Address: "The Prevention and Treatment of Rickets with Especial Relation to the Value of Sunshine."
Dr. Alan G. Brown, Associate Professor of Pediatrics, University of Toronto Faculty of Medicine, Toronto, Canada.
 Address: "The Dietary Treatment of Epilepsy in Children."
Dr. Fritz B. Talbot, Clinical Professor of Pediatrics, Harvard University Medical School, Boston, Mass.

Orthopedics

- Address: "Infectious Arthritis."
Dr. Nathaniel Allison, Professor of Surgery, Rush Medical College of the University of Chicago, Chicago, Ill.
 Address: "Ankylosing Operations for the Relief of Lumbo-Sacral and Sacro-Iliac Pain."
Dr. Edwin W. Ryerson, Professor of Orthopedic Surgery, Northwestern University Medical School, Chicago, Ill.
 Address: "Pott's Disease—Symptoms and Treatment."
Dr. William G. Turner, Clinical Professor of Orthopedic Surgery, McGill University Faculty of Medicine, Montreal, Canada.
 Address: "Relaxed Knees and Torn Crucial Ligaments and the Disability Following Such an Injury."
Dr. George E. Bennett, Associate Professor of Clinical Orthopedic Surgery, Johns Hopkins University School of Medicine, Baltimore, Md.

Thursday, October 23rd

7:30 A. M.

- Diagnostic Clinic (Surgical).
Dr. Barton J. Lee, Professor of Clinical Surgery, Cornell University Medical College, New York, N. Y.
 Diagnostic Clinic (Medical).
Dr. Elsworth S. Smith, Professor of Clinical Medicine, Washington University School of Medicine, St. Louis, Mo.
 Diagnostic Clinic (Surgical).
Dr. Frank H. Lahey, Director, Lahey Clinic, Boston, Mass.
 Diagnostic Clinic (Medical).
Dr. Emanuel Libman, Professor of Clinical Medicine, Columbia University College of Physicians and Surgeons, New York, N. Y.

Intermission for Review of Exhibits

- Diagnostic Clinic (Surgical).
Dr. Walter E. Dandy, Associate Professor of Clinical Surgery, Johns Hopkins University School of Medicine, Baltimore, Md.
 Diagnostic Clinic (Medical).
Dr. Charles A. Elliott, Professor of Medicine, Northwestern University Medical School, Chicago, Ill.
 Diagnostic Clinic: "The Diagnosis and Selection of Cases for Sympathetic Ganglionectomy and Trunk Resection in the Treatment of Peripheral Vascular Diseases."
Dr. Alfred W. Adson, Associate Professor of Surgery, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minn.,
 and
Dr. George E. Brown, Associate Professor of Medicine, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minn.

Noon Intermission

- Diagnostic Clinic (Medical).
Dr. John H. Musser, Professor of Medicine, Tulane University of Louisiana School of Medicine, New Orleans, La.
 Diagnostic Clinic (Surgical).
Dr. E. Starr Judd, Professor of Surgery, University of Minnesota, Graduate School of Medicine, Mayo Clinic, President-Elect American Medical Association, Rochester, Minn.
 Address: "Types and Treatment of Rheumatism."
Dr. Russell L. Haden, Chief of the Medical Division, Cleveland Clinic, Cleveland, Ohio.

Dermatology

- Address: "The Differential Diagnosis of Syphilitic and Non-Syphilitic Eruptions."
Dr. Howard Fox, Professor of Dermatology and Syphilology, University and Bellevue Hospital Medical College, New York, N. Y.
 Address: "X-ray Treatment of Skin Malignancies."
Dr. James M. Martin, Professor of Radiology, Baylor University College of Medicine, Dallas, Tex.

Intermission for Review of Exhibits

Circulatory System

- Address: "Coronary Thrombosis and Its Sequelae."
Dr. Emanuel Libman, Professor of Clinical Medicine, Columbia University College of Physicians and Surgeons, New York, N. Y.

- Address: "The Treatment of Essential Hypertension."
Dr. Elsworth S. Smith, Professor of Clinical Medicine, Washington University School of Medicine, St. Louis, Mo.
- Address: "X-ray Examination of the Heart and Aorta."
Dr. George W. Holmes, Assistant Professor of Roentgenology, Harvard University Medical School, Boston, Mass.
- Address: "The Diagnosis and Treatment of Pericarditis—The Cardiac Condition Most Frequently Missed."
Dr. Charles S. Williamson, Professor of Medicine, University of Illinois College of Medicine, Chicago, Ill.

- Address: "Anemias Simulating Pernicious Anemia."
Dr. John H. Musser, Professor of Medicine, Tulane University of Louisiana School of Medicine, New Orleans, La.

Dinner Intermission

7:00 P. M.

Malignant Diseases

- Address: "Surgery and Irradiation in the Treatment of Mammary Cancer."
Dr. Burton J. Lee, Professor of Clinical Surgery, Cornell University Medical College, New York, N. Y.
- Address: "Cancer of the Stomach."
Dr. Frederick N. G. Starr, Professor of Clinical Surgery, University of Toronto Faculty of Medicine, Toronto, Canada.
- Address: "Cancer of the Rectum."
Dr. John F. Erdmann, Professor of Surgery, New York Postgraduate Medical School, New York, N. Y.

- Address: "Reconstructive Surgery of the Face," illustrated by colored motion picture.
Dr. Joseph E. Sheehan, Professor of Plastic Surgery, New York Postgraduate Medical School, New York, N. Y.

Industrial Medicine and Surgery

- Address: "Underlying Principles of Traumatic Surgery."
Dr. John W. Martin, Vice President and Director of the Surgical Department, U. S. Fidelity and Guarantee Company, Baltimore, Md.
- Address: "Industrial Toxemias."
Dr. Jean S. Millard, Goodyear Rubber Company, Akron, Ohio.
- Address: "Preventive Medicine in Industry."
Dr. Cassius H. Watson, American Telephone and Telegraph Company, New York, N. Y.
- Address: "Industrial Surgery as a Specialized Field."
Dr. Roy D. McClure, Surgeon-in-Chief, Henry Ford Hospital, Detroit, Mich.
- Address: "End Results of Fractures in Industry."
Dr. Royal A. Shoudy, Chief Surgeon, Bethlehem Steel Company, Bethlehem, Pa.

Friday, October 24th

7:30 A. M.

- Diagnostic Clinic (Medical).
Dr. David P. Barr, Professor of Medicine, Washington University School of Medicine, St. Louis, Mo.
- Diagnostic Clinic (Surgical).
Dr. George W. Crile, Director, Cleveland Clinic Foundation; Professor Emeritus of Surgery, Western Reserve University School of Medicine, Cleveland, Ohio.
- Diagnostic Clinic (Medical).
Dr. Leonard G. Rowntree, Professor of Medicine, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minn.
- Diagnostic Clinic (Surgical).
Dr. Arthur Dean Bevan, Clinical Professor of Surgery and Head of Surgical Department, Rush Medical College of the University of Chicago, Chicago, Ill.

Intermission for Review of Exhibits

- Diagnostic Clinic (Medical).
Dr. Henry S. Plummer, Professor of Medicine, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minn.

Brain and Central Nervous System

- Address: "The Differential Diagnosis of Intracranial Lesions."
Dr. Alfred W. Adson, Associate Professor of Surgery, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minn.
- Address: "Tic Douloureux."
Dr. Walter E. Dandy, Associate Professor of Clinical Surgery, Johns Hopkins University School of Medicine, Baltimore, Md.
- Address: "The Importance of a Consideration of the Autonomic Nervous System in Medicine and Surgery."
Dr. William J. Mayo, Chief of Staff, Mayo Clinic, Rochester, Minn.

Noon Intermission

The Thyroid Gland

- Address: "Late Results of Thyroidectomy for Hyperthyroidism."
Dr. Charles A. Elliott, Professor of Medicine, Northwestern University Medical School, Chicago, Ill.
- Address: "Mortality Factors in Thyroid Disease."
Dr. Frank H. Lahey, Director, Lahey Clinic, Boston, Mass.

- Address: "The Thyroid Heart."
Dr. Stewart R. Roberts, Professor of Clinical Medicine, Emory University School of Medicine, Atlanta, Ga.
- Address: "Cause of the Specific Phenomena of Exophthalmic Goiter."
Dr. Henry S. Plummer, Professor of Medicine, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minn.

- Address: "Newer Methods for the Management of the Bad Risk Patient."
Dr. George W. Crile, Director, Cleveland Clinic Foundation; Professor Emeritus of Surgery, Western Reserve University School of Medicine, Cleveland, Ohio.

- Address: "Acute Abdominal Conditions."
Dr. Arthur Dean Bevan, Clinical Professor of Surgery and Head of Surgical Department, Rush Medical College of the University of Chicago, Chicago, Ill.

Liver and Gall-Bladder

- Address: "The Significance of Jaundice."
Dr. David P. Barr, Professor of Medicine, Washington University School of Medicine, St. Louis, Mo.
- Address: "The Value of Tests for Liver Function."
Dr. William J. Kerr, Professor of Medicine, University of California Medical School, San Francisco, Cal.
- Address: "Cirrhosis of the Liver."
Dr. Leonard G. Rowntree, Professor of Medicine, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minn.
- Address: "Surgical Lesions of the Bile Ducts."
Dr. E. Starr Judd, Professor of Surgery, University of Minnesota, Graduate School of Medicine, Mayo Clinic, Rochester, Minn.
- Address: "Observations on the Etiology of Gall Stones."
Dr. Andrew C. Ivy, Professor of Physiology and Pharmacology, Northwestern University Medical School, Chicago, Ill.

The acceptances of the following distinguished guests were received too late for them to be included in the above program. They will, however, take part in the program some time during the assembly:

- Dr. Ferdinand Sauerbruch**, Professor of Surgery, Medical Department, University of Berlin, Berlin, Germany.
- Address: "Operative Treatment of Cataract."
Dr. Emile de Grosz, Professor of Ophthalmology, Medical Department, University of Budapest, Budapest, Hungary.

ANNUAL MEETING, OBSTETRICIANS AND GYNECOLOGISTS

The Central Association of Obstetricians and Gynecologists meets Thursday, October 9th, in Kansas City, in conjunction with the Kansas City-Southwest Clinical Society. Members of the Association will cooperate in conducting clinics in the morning, while in the afternoon they will provide a symposium on Normal Labor: **Dr. Fred L. Adair**, Chicago, Management of Pregnancy; **Dr. Percy W. Toombs**, Memphis, Management of the First and Second Stages of Labor; **Dr. L. A. Clakins**, Kansas City, Management of the Third Stage; **Dr. Jennings C. Litzenberg**, Minneapolis, Occiput Posterior; **Dr. Fred J. Taussig**, St. Louis, Breech Presentation; **Dr. Rudolph W. Holmes**, Chicago, Prolonged Labor; and **Dr. G. D. Royston**, St. Louis, Post-natal Care.

On Friday and Saturday mornings, October 10th and 11th, the Association will conduct scientific sessions at the Hotel Elms, Excelsior Springs, Missouri. Members of the profession are cordially invited to attend. Registration can be made at the hotel; there will be no fee. Formal papers and case reports will feature the programs.

Excelsior Springs is only thirty miles from Kansas City with good interurban and bus service, and with excellent roads for those who motor.

Physicians wishing programs of the Excelsior Spring meetings may address **Dr. E. D. Plass**, Secretary, University Hospital, Iowa City, Iowa.

COMING MEETING OF THE MEDICAL SOCIETY OF THE MISSOURI VALLEY

The 43rd annual meeting of the Medical Society of the Missouri Valley will be held in Des Moines, Iowa, Wednesday, Thursday and Friday, October 15th, 16th and 17th. Headquarters will be at the Fort Des Moines Hotel.

To quote from the Preamble to the Constitution, as adopted during the society's reorganization in 1927, "The objectives of this association shall be primarily educational. The society shall give opportunity to the faculties of the universities of the district, to members of the association, and to invited guests to present such work as will tend to place the practice of medicine in the district on a higher scientific plane."

That this has not been written in vain, those who have had the good fortune to attend the meetings during the past few years can attest. The programs have been varied so that they have had universal appeal whether the physician be a general practitioner, a man devoting all his time to teaching in a medical school, or one specializing in a limited field. This policy will be continued.

It has, and is still felt, that such a society has a most important role to play in the workaday lives of the physicians of Missouri Valley. It brings to our door, so to speak, the opportunity for keeping pace with what is going on under the direction of some of our country's most able research workers and practicing physicians; it affords the means of meeting these men. The opportunity to renew old friendships and the making of new amongst the rank and file of the physicians of the Missouri Valley is assured. All this and more is available without expending the money and valuable time necessary to attend such meetings at greater distances.

The program for this year's meeting has been completed and is printed here:

Wednesday, October 15th

Morning Session

- Coronary Problem in Heart Disease.
Dr. Walter L. Bierring, Des Moines, Iowa.
- Treatment of Post-Operative Cardiac Decompensation.
Dr. John R. Kieyla, Associate Professor of Medicine, Creighton University.
- The Variability of Insulin Reactions.
Dr. F. Lowell Dunn, Director, Laboratory of Clinical Research, University of Nebraska.
- Glycosurias Other Than Diabetes Mellitus.
Dr. Russell M. Wilder, Professor of Medicine and Chairman of the Department of Medicine, University of Chicago.

Afternoon Session

- Surgical Treatment of Intracranial Meningiomas.
Dr. Loyal Davis, Associate Professor of Surgery, University of Chicago.
- Diabetic Clinic.
Dr. Russell M. Wilder, Professor of Medicine and Chairman of the Department of Medicine, University of Chicago.
- Radiographic Interpretations.
Dr. James F. Kelly, Associate Professor of Radiology, Creighton University.
- Hypertensive Renal Disease.
Dr. Daniel J. Glomset, Des Moines, Iowa.
- Neurological Clinic.
Dr. Loyal Davis, Associate Professor of Surgery, University of Chicago.

Thursday, October 16th

Morning Session

- The Essentials of Ophthalmology to the Man Practicing General Medicine.
Dr. Abbott M. Dean, Council Bluffs, Iowa.
- Complications of Goiter—Their Significance in Prognosis.
Dr. F. R. Peterson, Associate Professor of Surgery, University of Iowa.
- The Toxic Thyroid.
Dr. N. Boyd Anderson, Des Moines, Iowa.
- Thyroid Disease.
Dr. Aldis A. Johnson, Council Bluffs, Iowa.
- Chronic Parathyroid Deficiency, Post-Operative.
Dr. Julian D. Boyd, Associate Professor of Pediatrics, University of Iowa.
- A Concept of Thyroidectomy Technique of Today.
Dr. Willard Bartlett, Assistant Professor of Surgery, Washington University.

Afternoon Session

- Arthritis, Diagnosis and Treatment.
Dr. Laurence H. Mayers, Assistant Professor of Medicine, Northwestern University.
- Thyroid Clinic.
Dr. Willard Bartlett, Assistant Professor of Surgery, Washington University.
- The Association of the Liver in Biliary Tract Disease.
Dr. E. Starr Judd, Mayo Clinic, Rochester.
- Arthritic Clinic.
Dr. Laurence H. Mayers, Assistant Professor of Medicine, Northwestern University.
- Clinic.
Dr. E. Starr Judd, Mayo Clinic, Rochester.

Friday, October 17th

Morning Session

- The Surgical Treatment of Asthma Secondary to Chronic Bacterial Infection of the Nasal Accessory Sinuses.
Dr. John B. Potts, Assistant Professor of Otolaryngology, University of Nebraska.
- The Position of Surgery and Radium in the Treatment of Face and Mouth Epitheliomata.
Dr. Earl C. Padgett, Department of Surgery, University of Kansas.
- Carcinoma of the Bronchi.
Dr. Horace M. Korns, Associate Professor of Medicine, University of Iowa.
- Cancer Control Problem.
Dr. E. H. Skinner, Roentgenologist, Kansas City.
- Cancer of the Skin and Oral Cavity—a Preventable Disease.
Dr. Joseph C. Bloodgood, Professor of Clinical Surgery, Johns Hopkins University.

Afternoon Session

- Fractures of Femur.
Dr. C. B. Francisco, Professor of Clinical Orthopedic Surgery, University of Kansas.
- Cancer Clinic.
Dr. Joseph C. Bloodgood, Professor of Clinical Surgery, Johns Hopkins University.
- A Few Facts Concerning Heart Disease.
Dr. John H. Musser, Professor of Medicine, Tulane University, of Louisiana.
- Tendencies in Modern Practice.
Dr. Charles H. Neilson, Professor of Medicine, St. Louis University.
- Heart Clinic.
Dr. John H. Musser, Professor of Medicine, Tulane University, of Louisiana.

The officers of the society feel that with such a program to offer, this year's meeting will see a record attendance.

DEXTRI-MALTOSE FOR MODIFYING LACTIC ACID MILK

Physicians who are partial to the use of lactic acid milk in infant feeding are finding Dextri-Maltose the carbohydrate of choice.

To begin with, Dextri-Maltose is a bacteriologically clean product, unattractive to flies, dirt, etc. It is dry, and easy to measure accurately.

Moreover, Dextri-Maltose is prepared primarily for infant feeding purposes by a natural diastatic action.

Finally Dextri-Maltose is never advertised to the public but only to the physician, to be prescribed by him according to the individual requirements of each baby.

SOCIETY PROCEEDINGS

Boone County

The Boone County Medical Society held a meeting at Ledges State Park, on July 29, and enjoyed a beefsteak dinner prepared by our very efficient "chef," Dr. E. M. Myers. Fourteen members were present at the business session, during which time Dr. Wallace H. Longworth, who has taken over the practice of the late Dr. George H. Stanger, was voted into membership.

On August 8, the members of the society were invited to Camp Hantesa where they enjoyed a swim in Sammish Memorial Swimming Pool and had dinner at the camp. A short business session was held and it was agreed that the offices of all physicians should be closed on Wednesday afternoons until September 1, and that the same rule would be followed from June 15, 1931, until September 1, 1931.

Mark C. Jones, M.D., Sec'y.

Dubuque County Picnic

Members of the Dubuque County Medical Society held their annual picnic Wednesday, July 23, at Riverside. Following an afternoon's entertainment of horseshoe pitching, baseball, and other amusements, a fried chicken dinner was served at 6:30 to the thirty members and guests present.

Floyd County Clinic

A heart and lung clinic was held Friday, July 25, at the Cedar Valley Hospital, in Charles City, under the auspices of the Floyd County Medical Association. Drs. John H. Peck and Daniel J. Glomset of Des Moines, were in charge and examined a number of patients at the hospital and private homes.

Lucas County

At the meeting of the Lucas County Medical Society held in Chariton, Tuesday, September 2, the following two motion picture films were reviewed: Movements of the Alimentary Tract in Experimental Animals, and Emergency Operations, Liver-stab Wound and Bullet Wound in the Bladder. Mr. Vernon D. Blank, managing director of the state society, was present and addressed the members on State Society Services.

Scott County

The regular monthly meeting of the Scott County Medical Society was held Tuesday evening, September 2, at the Chamber of Commerce. Following the six o'clock dinner the guest speaker, J. C. Masson, M.D., of the Mayo Clinic at Rochester, presented a paper on Extra-Uterine Pregnancy.

Henry A. Meyers, M.D., Sec'y.

Washington County Annual Meeting

The annual banquet and election of officers of the Washington County Medical Society was held at

the Y. M. C. A. Tuesday, September 2. George A. Jenkins, M.D., of Albia, was the speaker of the evening and his subject was The Country Doctor. Dr. William A. Rohlf, president of the state society, was present and addressed the meeting on various state society matters.

Upper Des Moines Medical Society

Physicians from four northern counties, Clay, Dickinson, Emmet and Palo Alto, met at Spirit Lake, Thursday, August 14, for the annual meeting of the Upper Des Moines Medical Society.

The all day session opened at 9:00 A. M. and the following program was presented: The Relation of the Catheter to So-called Catheter Cystitis, Hugh Cabot, M.D.; The Treatment of Pernicious Anemia, H. M. Conner, M.D.; Dermatitis, W. H. Goekerman, M.D.; Chronic Laryngeal Stridor, R. L. J. Kennedy, M.D. All of the above mentioned doctors are from the Mayo Clinic, Rochester.

Immediately after the lunch hour, visiting physicians and officers of the state medical society gave several short talks. The afternoon program consisted of: Fractures, W. E. Wolcott, M.D., Des Moines; The Surgical Treatment of Pulmonary Tuberculosis (illustrated), C. A. Hedblom, M.D., Chicago; Bacterial Infection in the Mucous Membrane in Chronic Hyperplastic Sinusitis, John B. Potts, M.D., Omaha; Management of Breech Presentations (illustrated by DeLee two-reel film), E. D. Plass, M.D., Iowa City.

Following a six-thirty banquet at the Hotel Orleans, the evening program was presented with Dr. William A. Rohlf of Waverly, acting as toastmaster. Mr. Vernon D. Blank spoke on Team Work, and Dr. John H. Peck addressed the group on The Ladies Auxiliary. The speaker of the evening was Dr. E. R. Coffey of the United States Public Health Service, and his subject was Rural Health Activities.

The present officers of the society are: Dr. C. O. Epley of Spirit Lake, president; Dr. M. T. Morton of Estherville, vice president; and Dr. George H. Keeney of Mallard, secretary and treasurer.

INTERESTING NEWS In Brief

At the recent meeting of the American Association for the Study of Goiter at Seattle, Washington, Dr. William F. Reinhoff, Jr., of Johns Hopkins University, Baltimore, Maryland, received the annual award of \$300 for the best essay dealing with the goiter problem. Drs. O. P. Kimball, of Cleveland, Ohio, and E. P. and D. R. McCullagh, Cleveland Clinic Foundation, Cleveland, Ohio, and Robert P. Ball, of the University of Louisville, received honorable mention.

Construction has begun on a new \$400,000 re-

search building endowed by the late Edward Mallinckrodt and a \$750,000 endowment for research in radiology has been established by the Rockefeller institute. The institute will be devoted to diagnosis, treatment and research in the field of cancer and will be a part of Washington University School of Medicine.

For the education of each medical student in the College of Medicine of our State University the state must pay \$686.00. The per capita cost in many other state institutions runs considerably in excess of this amount. Some cost the state as much as \$1,500.00. The largest enrollment in the history of the college was that of 1929-30 when 522 were registered.

During July and August forty-one indigent children from Boone County have had tonsillectomies at the Eleanor Moore Hospital. This work has been done by the members of the Boone County Medical Society who have been assisted by the Social Service League, the county social service worker, the Red Cross nurse, and the school nurse in Boone.

At the recent annual session of the American Medical Editors Association the establishing of a federal department of education with a physician as secretary and member of the president's cabinet was urged. Such a cabinet member would do much towards furthering disease prevention and health extension in this country.

Dr. Arnold A. C. Butts, director of Emery Laboratory, Hahnemann Hospital, Philadelphia, has recently announced a vital stain selective for cancer. This stain, it is thought, will be of material use in the early recognition of cancer since it not only renders the living tissue brilliant vermilion but is opaque to the x-ray.

A plan has been sponsored by Dr. Stuart A. Queen of the University of Kansas providing a system of community, state or national health insurance for the retirement of medical fees during illness. Such a plan savors of paternalism and will likely receive little support in Iowa.

A \$2,000,000 institute for the promotion of health and education among the negroes of the south is assured. Headquarters for this institution will be in New Orleans. The program calls for cooperation between Flint-Goodridge Hospital and Dillard University.

Plans have recently been announced for the erection of a \$1,500,000 Medical Arts building in Sioux City. Plans call for a thirteen story building to be erected at Sixth and Douglas streets. Occupancy will be limited to physicians and dentists.

Professor R. D. Passey of the University of Leeds has announced that mustard gas has been used

successfully in the experimental animals in preventing cancer. He has as yet not experimented with human material.

Dr. Ernest Freund of the University of Vienna is the latest to announce a cure for cancer. The results were obtained by introducing into the bodies of patients anti-cancer bacteria.

Initial plans have been made for the organization in Wapello county of a cooperative health organization to include some eighteen or twenty groups engaged in health activities.

Approval was received at the recent annual meeting of the Lutheran Hospital stockholders at Sioux City for the erection of a \$45,000 addition to the hospital nurses home.

The Medical Unit of the University Library at Iowa City has shown the greatest gain of any unit for the past year. Medical students now have access to 18,000 volumes.

PERSONAL MENTION

Dr. Arthur Steindler, head of the Department of Orthopedic Surgery at the University of Iowa, has been honored by European surgeons with an invitation to attend an international meeting of orthopedic specialists, to be held in Paris, October 6, for the purpose of organizing an international orthopedic society. He will read a paper on the reconstruction of the upper extremities before the German Orthopedic Congress at Heidelberg on September 16. Dr. and Mrs. Steindler have been in Vienna visiting his mother and expect to return to Iowa City about the middle of October.

Dr. and Mrs. Eli Grimes, of Des Moines, recently returned from a two months' tour of Denmark, Norway, Iceland, Finland and Russia. While in Leningrad they ate a meal at the government kitchens, where the Russian people are fed salad, black bread, cheese, dried fish and tea day after day. In spite of the fact that this menu is never varied, Dr. Grimes said that the people seem to thrive on that diet.

Dr. Verl A. Ruth, who has been practicing in Ames, Iowa, for the past several years, has returned to Des Moines and has opened an office at 913 Bankers Trust Building. Dr. Ruth has limited his practice to fractures and orthopedic surgery.

Dr. John H. Randall, of the Department of Obstetrics and Gynecology of the State University, sailed for Europe Saturday, August 16, to visit the medical centers on the continent and to spend several months in Vienna studying pathology.

Dr. O. V. Wille, of Meservey, has located at Grafton. Dr. Wille has practiced in Meservey for the last two years, having been in Grafton prior to that time.

Dr. Burton D. Little, of Winterset, has announced that Dr. John Kenefick, of Eagle Grove, is now associated with him in practice. Dr. Kenefick was graduated from the State University and has been taking post graduate work in surgery during the past year.

Dr. and Mrs. J. G. Clark have returned from a wedding trip to Yellowstone National Park and will be at home in Iowa City. Mrs. Clark was formerly Miss Arlene Belding, of Waucoma, and their marriage took place at the home of the bride's parents, Dr. and Mrs. W. H. Belding, on July 12. Dr. Clark is a member of the surgical staff of the University Hospital.

Dr. O. O. Svebakken, of Decorah, has announced that Dr. Lester Larson, of Waukon, is now associated with him in practice. Dr. Larson is a graduate of the College of Medicine of the University of Minnesota, and recently completed his internship at the Minneapolis General Hospital.

Dr. W. J. Donovan, of Fort Dodge, who has been ill for the past five months, is much improved and expects to return to Fort Dodge and resume his practice this fall. Dr. Donovan has been visiting relatives in Baltimore, Washington, D. C., and Los Angeles.

Dr. W. E. Walsh, of Hawkeye, who has recently completed an internship at the Council Bluffs Hospital, will practice with his father, Dr. T. N. Walsh.

Dr. F. G. Vernon, of Merrill, will appear on the program of a two weeks' course of instruction in physical therapy to be held in the Graemore Hotel, Chicago. Dr. Vernon will talk on ultra-violet radiation, with special reference to an improved nasal speculum, of which he is the inventor.

Dr. Ray A. Fox, a graduate of the State University of Iowa, and for the past five years a member of the faculty of the department of surgery, has located in Charles City. Dr. Fox will confine his practice to surgery and consultation.

Dr. E. T. Wickham, of Washington, has donated his medical library to the Washington County Medical Society, as a nucleus for the development of a comprehensive library for the use of the members of the society. The upper sun parlor of the Washington County Hospital has been set aside for the library.

Dr. M. J. Kenefick, of Algona, delivered an address on quacks and quackery at a meeting of the local Rotary Club on Monday, August 25.

Dr. E. D. Tompkins, of Clarion, discussed tuberculosis, with special reference to its prevention, at a recent meeting of the Clarion Rotary Club.

Dr. J. A. William Johnson, of Newton, has announced that about September 1st he will open a ten-room office building, with newly equipped clinical and X-ray laboratories.

Dr. and Mrs. M. A. Tinley and their family, of Council Bluffs, arrived in New York on the S. S. America, August 22, from a six weeks' trip abroad. Dr. Tinley won the gratitude and praise of the ship's captain, George Fried, by performing an operation for appendicitis without requesting the customary halting of the ship during an operation.

Dr. W. W. West, of Clarinda, has returned to his home from St. Joseph's Hospital at Centerville, where he has been confined since a recent automobile accident in which he was seriously injured.

Dr. H. O. Young, who has been practicing in Olin for the past three years, will open an office in the T. J. Davis Building in Marion, on September 1.

Dr. J. G. Grant, of Manitoba, Canada, has been appointed to succeed Dr. Verl A. Ruth as a member of the college hospital staff of Iowa State College. Dr. Grant is a graduate of McMaster University, Toronto, and of the medical school of the University of Manitoba, Winnipeg. He has practiced for four years in Manitoba province.

MARRIAGES

Dr. Willard P. Marble, son of Dr. and Mrs. P. L. Marble, of Liscomb, and Miss Marie Peterson were married on Saturday, August 9, at the home of the bride's parents, Mr. and Mrs. L. K. Peterson, of Liscomb. Dr. Marble is a graduate of the College of Medicine at the State University of Iowa and for the past year has been an interne in the Charity Hospital of Louisiana, at New Orleans.

The marriage of Miss Lyla Hovey, daughter of Mr. and Mrs. S. E. Hovey, of Badger, to Dr. Otto Glesne, of Fort Dodge, took place at the home of the bride's parents Friday morning, August 22. The ceremony was performed by the Rev. O. Glesne, of Decorah, father of the groom. Dr. Glesne is a graduate of the College of Medicine of the University of Minnesota, and has been practicing medicine in Fort Dodge for about four years.

The marriage of Miss Clare Vaughan Sheehan, of Independence, and Dr. Homer W. Scott, of Iowa City, took place at the home of the bride's parents, Mr. and Mrs. P. J. Sheehan, Saturday, August 6, at 10 o'clock. Following the ceremony a three-course breakfast was served to members of the family and guests present.

Dr. and Mrs. Scott left in the afternoon on a motor trip to the Black Hills and Yellowstone National Park. They plan to return about the first of September and will make their home in Iowa City, where Dr. Scott is associated with Dr. George Scanlon in the practice of medicine.

DEATH NOTICES

Burrows, Francis Austin, of Dumont, died July 20th, at the age of seventy-three as the result of a sudden heart attack; graduated in 1887 from the State University of Iowa College of Medicine. He had been a member of the Cherokee County Medical Society while practicing at Larrabee.

Long, Enoch Cloud, formerly of Williamsburg, died at his home in Prescott, Arizona, July 18, at the age of seventy-six; graduated in 1890 from the University of Louisville School of Medicine. Until his removal to Arizona, Dr. Long was a member of the Iowa County Medical Society.

Powell, C. B., of Albia, died at his home August 14, at the age of eighty-one, as the result of a stroke of apoplexy which he suffered five years ago; graduated from the Keokuk Medical College in 1882. He was local surgeon for both the Burlington and Wabash railroads for many years and a charter mem-

ber of the national association of railway surgeons. At the time of his death he was a member of the Monroe County Medical Society.

Russ, John Frederick, formerly of Iowa Falls and Buffalo Center, died August 13, at the age of sixty-four at Rochester, Minnesota, where he had been taken for an operation for cancer of the stomach; graduated in 1893 from the State University of Iowa College of Medicine. Since 1920, Dr. Russ had been living in Blue Earth, Minnesota, but prior to that time practiced medicine for twenty years in Buffalo Center and eight years in Iowa Falls. He had been a member of the Hardin County Medical Society.

Scripture, James Levi, of Clarksville, died August 14, at the age of sixty following a long illness; graduated in 1897 from the State University of Iowa College of Medicine. In 1922 he joined the Veterans Bureau, but up to that time he had been a member of the Butler County Medical Society.

Whicher, Charles M., of Des Moines, died July 28, at the age of fifty-nine after a sudden heart attack; graduated in 1896 from the University of Buffalo School of Medicine. At the time of his death he was a member of the Polk County Medical Society.

IOWA LUTHERAN HOSPITAL HAS NEW SUPERINTENDENT

Mr. L. A. Johnson, formerly of Kansas City, began his duties September 1 as superintendent and business manager of the Iowa Lutheran Hospital, to succeed the Rev. A. Norrbom, who resigned several weeks ago.

For the past eight years Mr. Johnson has been superintendent of Trinity Lutheran Hospital in Kansas City, during which time he doubled the capacity of the hospital. He had previously been a banker in Kansas City, was appointed assistant bank commissioner for the state, and served two terms in the Kansas legislature.

Mr. Johnson believes that a business administration is essential to the success of a hospital, whether or not it is a charitable institution.

Mr. and Mrs. Johnson and their two children, Lois and Earl, arrived in Des Moines the last of August and are living at 600 Parnell Street.

STATE SEEKS POLIOMYELITIS SERUM FROM CONVALESCENT ADULTS

The poliomyelitis season is now at hand and a number of cases are occurring all over the state. It is the feeling of the medical profession generally, that convalescent serum is the best treatment for this dread disease. The serum is given intramuscularly in doses of 10 to 40 c.c.

The Commissioner of Health of the state of Iowa, Dr. D. C. Steelsmith, has arranged with the Glomset Laboratory in Des Moines, to prepare this serum. The laboratory is willing to do so and requests and urges the physicians of the state to send to the laboratory adult patients who have recovered from the disease and who are willing to donate blood for this purpose. The donors will be paid at the rate of \$25 per pint of blood.

WOODBURY COUNTY HEALTH UNIT ORGANIZED

A county board of health with a full-time executive has been organized by the board of supervisors of Woodbury county. This step is in accordance with the county health unit plan endorsed by the state and federal departments of health.

Dr. W. S. Petty, of Jefferson City, Missouri, was appointed medical director of the unit and will begin his duties September 1. Dr. Petty was formerly assistant director of county health work in Missouri.

The board consists of eleven members who will direct all public health activities in the county. They are Dr. R. F. Bellaire of Sioux City, chairman; Rev. J. S. Deedrick of Danbury, secretary; Mayor W. D. Hayes and Dr. R. H. McBride of Sioux City, Dr. W. H. Dewey of Merville, City Superintendent of Schools M. G. Clark, County Superintendent of Schools C. F. Clark, Mrs. M. P. Summers, Mrs. W. H. Griffith, A. L. Brown of Correctionville and Rev. Father D. K. Hurley of Anthon.

The principal duties of the board will be to correlate and direct all public health work in the county, to enforce the regulations of the state department of health, to fix the budget, appoint the necessary personnel, and in general decide upon any problem dealing with public health in the county. Their immediate concern will be the health of the school child.

LAUNDER REAPPOINTED TO BOARD OF MEDICAL EXAMINERS

Dr. Frank T. Launder, of Garwin, was reappointed by Governor Hammill as a member of the state board of medical examiners, to serve for a second three-year term beginning July 1 of this year. Dr. Launder was a member of the state board of health for ten years, from 1917 to 1927, and since that time has been a member of the board of medical examiners.

NEW AND NON-OFFICIAL REMEDIES

International Vitamin Corporation

I. V. C. Vitamin Concentrate of Cod Liver Oil.

National Drug Co.

Antimeningococcic Serum.

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Gas-Gangrene Antitoxin (Combined) Refined and Concentrated.

Soluble Gelatine Capsules Parke, Davis & Company's Standardized Cod Liver Oil, 10 minims.

Soluble Gelatine Capsules Parke, Davis & Company's Standardized Cod Liver Oil, 20 minims.

Soluble Gelatine Capsules Parke, Davis & Company's Standardized Cod Liver Oil, 2.5 Gm.

Soluble Gelatine Capsules Parke, Davis & Company's Standardized Cod Liver Oil, 5 Gm.

G. D. Searle & Co.

Chiniofon-Searle

Tablets Chiniofon-Searle, 0.25 Gm. (4 gr.)

C. M. Sorensen Co., Inc.

Inhalant Chloretone Creosote and Eucalyptol-Sorensen.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

DR. WILLIAM JEPSON, Sioux City

DR. FRANK M. FULLER, Keokuk

DR. ARTHUR D. WOODS, State Center

DR. WALTER L. BIERRING, Des Moines

DR. NORMAN F. MILLER, Iowa City

The Practice of Medicine in Iowa in Early Days and After 1870

D. S. FAIRCHILD, M.D.*

PART III

It is worth while to outline in a general way the methods of practice in Iowa about 1870. The majority of the practitioners were small town doctors, even if the town contained from 5,000 to 15,000 the conditions were practically the same; no one practitioner had a sufficient number of cases or sufficient variety to speak with authority. Most of the medical literature was of English origin or from Philadelphia. *The American Journal of Medical Science*, edited by I. Ninus Hayes, was the leading American medical journal, closely followed by the *Boston Medical and Surgical Journal*. It was about 1870 that Dr. Shrady started the *Medical Record of New York* and retained a leading influence during his lifetime. Most of the medical journals of that time were issued by publishing houses as a commercial venture. *The American Journal of Medical Science* was published quarterly in 1870 and Dr. Shrady felt that the interval between publications was too long and issued the *Medical Record* every two weeks. At the same time the *Boston Medical and Surgical Journal* appeared weekly. There were journals published in St. Louis and Chicago, but these never gained a large circulation or a great influence until the American Medical Association began to journalize its proceedings under the direction of Dr. N. S. Davis in 1883.

There were not many books in a doctor's office, indeed, a large portion of the general public did not approve of doctors reading books. There was a rather prevalent idea that a knowledge of medicine was a natural gift and that knowledge gained from books was unreliable, if not dangerous, and many would rather trust their lives to the administration of Indian remedies than to prescriptions gained from books. This conception of medicine

had nearly disappeared in the New England and most of the Atlantic states, but was very prevalent in the western states. In the eastern states a certain amount of culture was expected of the physician in either large or small towns, while in Iowa there were certain doctors who gained great local credit because of their vulgar profanity and whisky drinking habits and capacity, but such doctors did not last long, two or three years perhaps. The reputation they sometimes acquired of possessing natural gifts in the detection of disease and treatment began to wear off, when the doctor understanding the situation, soon discovered another congenial location. Such types of men have now disappeared from the medical profession. If paper and pencil would permit, we could relate certain instances of what kind of doctors were employed from choice in Iowa by certain people fifty years ago, or even later, some of the old men would recognize them.

In the second fifty years of the practice of medicine in Iowa, it seemed to be a generally accepted fact that most practitioners looked upon acute diseases as self-limited and regarded the doctors who claimed to break up typhoid fever or pneumonia with suspicion. The best they could do was to direct the course of the disease in such a way as to bring the patient out safely, by good nursing and well selected diet. The most serious and distressing feature of the practice of medicine in those days was the absence of trained nurses of any degree, especially in country districts among the poorer class of farmers, and laborers in towns where every modern conception of nursing and diet was disregarded. The writer recalls certain experiences in Minnesota in 1869 among foreign immigrants recently arrived in this country. Griddle cakes were regarded as a luxury es-

*Deceased.

pecially suited to the taste of sick people and were particularly urged upon typhoid fever patients. Among the Scandinavians the doctor as a rule was not expected to call more than once or twice a week and that on special summons. One of our early experiences in 1869 was a call at some distance to see a young man of about 18 years, who was up and about the house but felt very sick; could not eat griddle cakes, and his parents thought he ought to have a doctor to give him some medicine to restore his appetite. Typhoid fever was diagnosed—we had no fever thermometers then. The boy was ordered to bed and a milk diet directed—the best we had then. This was received in silence, although the people could speak fairly good English. The doctor was directed not to come again until called. A few days later a messenger was sent and when we arrived the boy was dead from hemorrhage from the bowels. The family had wholly disregarded the doctor's directions. Of course the blame for the death of the boy was placed on the doctor for not giving stronger medicine to stop this disease and it was a long time before we had any more calls in the Norwegian settlement. Once again, two years later, in another Norwegian community, we had a patient suffering from an attack of typhoid fever. The patient became delirious, a low form of muttering delirium, and finally called the only doctor within twenty miles. The doctor tried the various remedies he knew about to produce sleep, without avail. Knowing how serious a low form of muttering delirium with sleeplessness was in typhoid fever and that the people were sending for another doctor (by messenger, no other way then), "we took a chance." We had 30 grs. of chloral hydrate that we had paid a dollar for; we did not know exactly what the dose was or its effect on the patient; we had read that it was good in puerperal convulsions, and purchased 60 grs. for a patient suffering from this disease, for which we paid two dollars but had no opportunity to give more than one dose after it was received, when the patient died. So in this case of delirium and sleeplessness in typhoid fever we gave the remaining 30 grs. The patient fell into a quiet sleep and after a few hours awoke refreshed and free of delirium. What would happen from giving the practically unknown drug we did not know, so we waited in great anxiety for the sick man to awaken and when Dr. Galloway arrived the next day he could only comment on the improved condition of the patient.

The common practice for night service was for two neighbors to "watch" for the first half of the night and two for the last half of the night. Their duty was to give certain medicine according to a

schedule and water and nourishment likewise. Among the watchers there were always partisans of some other doctor than the attending physician and more or less trouble and bitter feeling would arise. Even in this day of advanced civilization it is reported that trained nurses sometimes resort to the same method to get their favorite doctor installed. Medical science has made great advancement but medical ethics remain as a distinct individual characteristic. With the masses the principle of ethics is governed by the accepted principle of "good business." The serious objection was the confusion that was liable to arise from an unfriendly change of doctors at a critical period of the disease. As most patients seriously sick are treated in hospitals, there is an increasing tendency for the hospital to select the doctor and the doctor becomes the servant of the hospital, often dependent on the good will of the management. From 1870 to 1900 in Iowa the doctor was responsible to the patient alone, even in 1920, the close of the second fifty years of practice, hospitals had scarcely reached a controlling position so far as the practice of medicine was concerned.

The house-to-house practice involved some hardship to the doctor, but it developed a form of independence and resourcefulness that inspired greater confidence on the part of the public. It is probably true that the present method of hospital control is to the advantage of the patient in so far as his chances of recovery are concerned, but the financial burden of sickness has greatly increased. If the hospital is not purely a commercial affair, the burden can be adjusted to meet the best interests of the patient, but the burden on the masses of the profession is a really serious one, except to those who have an independent income from other sources than the practice of medicine, inherit a practice or are the favorite sons of some special influence.

In 1870 and for several years thereafter the means of transportation were so poor that physicians did not travel much beyond visiting their patients, which exhausted their time and strength. Dr. Garfield was an early practitioner in Algona. Algona was the western terminus of the northern division of the C., M. & St. P. Ry., but there were wide stretches of thinly settled country north, west and south in which there were no towns or settled doctors. Sickness was not common, but cases of serious sickness or accidents did sometimes occur that were quite beyond the skill of domestic or neighborhood medical or surgical skill. Dr. Garfield was a strong man physically and of courage and resourcefulness. In the early days it was not uncommon for the doctor to start from Algona on a three or four days' circuit. In the

winter it was necessary to take extra precautions against blizzards. Experience had shown Dr. Garfield what the natural history of winter storms on the prairie was, and when overtaken by one far from shelter, he unhitched his horses, covered them with blankets and secured them as well as possible; turned over his sleigh—every doctor in northern Iowa wore a fur coat and carried fur robes for the winter—and remained in this rather insufficient shelter until the storm was over, which was generally three days. In these long trips, attended with uncertainty, the doctor carried food, which was a comfort under such circumstances.

Dr. J. M. Knott was an early physician in Sioux City and had an open field from Sioux City to Spirit Lake, and his experiences were like those of Dr. Garfield, and the same was true of Dr. J. N. Robertson of Columbus City, whose field of practice extended from Cedar Rapids to Keokuk. But the fierce blizzards did not rage in this region as in the northern section. But few men had the courage to accept such a field of practice after graduating from a medical college. But there was the adventure and the hope that some new railroad would reach them and build up a center of population. Some, like Dr. Knott and Dr. Garfield realized this hope, but in many cases too late for the worn out pioneer physician to enjoy the change.

OBITUARIES

JAY PHILON WHITNEY, M.D.

Was born in Illinois, removing to Iowa as a small child. He graduated from Rush Medical College in 1883 and returned to Vinton, Iowa, where he practiced medicine continuously during the remaining forty-seven years of his life. He was a member of the Benton County and Iowa State Medical Societies and regent of the Virginia Gay Hospital. Doctor Whitney died suddenly on the 17th of July, 1930, of cerebral hemorrhage. He is survived by his wife and one son.

G. R. Woodhouse, M.D.

PAUL S. MABRY, M.D.

Formerly of Harvey, died May 21, at the age of fifty three of chronic pulmonary tuberculosis. At the time of his death he was stationed at U. S. Veterans Hospital, Fort Bayard, New Mexico. He graduated in 1904 from the St. Louis University School of Medicine and served during the World War.

Corwin S. Cornell.

JAMES A. SHRADER, M.D.

Formerly of Monroe, died May 23, at the age of eighty-eight at his home in East Moline, Illinois. Dr. Shrader was a veteran of the Civil War, and a pioneer physician of Marion and Jasper Counties where he practiced medicine and surgery for more than fifty years.

Corwin S. Cornell.

UNITED STATES CIVIL SERVICE EXAMINATIONS

The United States Civil Service Commission announces the following open competitive examinations:

Senior Medical Officer (Pathology), \$4,600 to \$5,400 a year.

Associate Medical Officer (Pathology), \$3,200 to \$3,800 a year.

Applications for senior and associate medical officer (pathology) must be on file with the Civil Service Commission at Washington, D. C., not later than September 24, 1930.

The examinations are to fill vacancies in the United States Public Health Service, and in positions requiring similar qualifications.

The entrance salaries range from \$4,600 to \$5,400 a year for the senior grade, and from \$3,200 to \$3,800 a year for the associate grade. Higher-salaried positions are filled through promotion.

Competitors in the examination for senior medical officer will be rated on their education, training, and experience, and on a thesis or publications.

Competitors in the examination for associate medical officer will be rated on their education, training, and experience.

Full information may be obtained from the United States Civil Service Commission, Washington, D. C., or the Secretary of the United States Civil Service Board of Examiners at the post office or custom house in any city.

CINEMATOGRAPHIC INVESTIGATION

The League of Nations is undertaking an exhaustive study of the effects that motion pictures may produce on the eyesight of children and young people. The widespread use of the cinema throughout the world now, its additional possibilities for visual education with the introduction of talking pictures and its increased use in schools and colleges has prompted the present investigation.

Under the supervision of Dr. Lucien de Feo, Director of the International Educational Cinematographic Institute of the League of Nations, the study will seek to determine whether any disturbances of sight are provoked by watching a brilliantly lighted screen in absolute darkness, the maximum time that a show can last before producing a tiring effect on sight, and similar answers which may influence the use of motion pictures for juvenile education.

Leading scientific authorities throughout the world are being consulted. In this country the National Society for the Prevention of Blindness will cooperate with Dr. de Feo in this enterprise.

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

- PHYSICAL DIAGNOSIS**—By Richard C. Cabot, M.D.—Massachusetts General Hospital, Boston, May, 1930.—Tenth Edition, revised and enlarged, with six plates and 279 figures in the text.—(The more important new matter introduced relates to coronary disease, electrocardiography, cancer of the lung, cardiac asthma, toxic hepatitis and encephalitis lethargica.)—Publishers, William Wood & Company, New York.—Price, \$5.00, net.
- INFANT NUTRITION**—By Williams McKim Marriott, B.S., M.D.—Illustrated—Price, \$5.50—C. V. Mosby Company, St. Louis.
- RADIUM IN GENERAL PRACTICE**—By A. James Larkin, B. Sc., M.D., D. N. B.—Illustrated—Paul B. Hoeber, Inc., New York. Price, \$6.00.
- NORMAL FACTS IN DIAGNOSIS**—By M. Coleman Harris, M. D. and Benjamin Finesilver, M. D.—Price, \$2.50, Net—Philadelphia, F. A. Davis Company Publishers, 1930.
- PHYSIOLOGY AND BIOCHEMISTRY IN MODERN MEDICINE**—By J. J. R. MacLeod, M.D., LL.D., D.Sc., F.R.S., assisted by Roy G. Pearce, A. C. Redfield, N. B. Taylor, and J. M. D. Olmstead, and by others—Sixth Edition with 295 illustrations, including 9 plates in colors—Price, \$11.00—C. V. Mosby Company, St. Louis.
- THE DOCTOR IN COURT**—By Edward Huntington Williams, M.D.—A book of experiences of the expert medical witness.—With an appendix on expert testimony by Charles W. Fricke, Judge of the Superior Court, Los Angeles County, Published September, 1929—Williams & Wilkins Co., Baltimore.
- CLINICAL FEATURES OF HEART DISEASE**—By Leroy Crummer, M.D.—Second Edition, revised and enlarged—Price, \$4.00—Paul B. Hoeber Company, New York City.
- CERTIFIED MILK CONFERENCES**—Held in 1929 by American Association of Medical Milk Commissions, etc.—American Association of Medical Milk Commissions, 360 Park Place, Brooklyn, New York.
- ALLERGIC DISEASES**—By Ray M. Balyeat, M.A., M.D., F.A.C.S.—Illustrated with 87 engravings including four in colors.—Third Edition, revised and enlarged, as Their Diagnosis and Treatment.—Price, \$5.00, net—F. A. Davis Company, Philadelphia.
- MANUAL OF THE DISEASES OF THE EYE**—For Students and General Practitioners—By Charles H. May, M.D.—Thirteenth Edition, Revised.—With 374 original illustrations, including 23 plates, with 73 colored figures.—William Wood and Company, New York, 1930.—Price, \$4.00, net.
- THE COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION FOR 1929**—Volume XXI.—Edited by Mrs. M. H. Melish, Richard M. Hewitt, M.D., and Mildred A. Felker, B.S.—Octavo volume of 1197 pages with 279 illustrations.—Philadelphia and London.—W. B. Saunders Company, 1930.—Cloth, \$13.00, net.
- MEDICAL EDUCATION AND RELATED PROBLEMS IN EUROPE**—Commission on Medical Education, April, 1930.

BOOK REVIEWS

DAY DREAMS

A book of poetry and addresses by Walter Raleigh Brock, M.D., Sheldon, Iowa. The Scott Drug Store, Sheldon, Iowa. Price \$1.75, postpaid.

This collection of poems and addresses includes several which Dr. Brock, an active member of the Iowa state society and vice president of the Sioux Valley Medical Society, has delivered on various occasions before medical meetings and lay gatherings. A positive philosophy of life, whimsical humor and touching passages characterize the book. One poem, Tribute to a Rose, has an abiding beauty.

Such a work is a pleasing evidence of that rare quality which enables a successful professional man to follow one of the arts as a hobby. V.D.B.

THE SURGICAL CLINICS OF NORTH AMERICA

(Issued serially, one number every other month.) Volume 10. No. 3. (New York Number—June, 1930.) Octavo of 265 pages with 123 illustrations. Per Clinic Year, February, 1930, to December, 1930. Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company, 1930.

This number contains clinics by twenty-one New York surgeons covering many surgical subjects. Drs. Eugene Pool and Roland W. Hipsley have an interesting discussion on "The Effects and Results of Splenectomy in a Variety of Conditions."

Dr. Howard Lilienthal has his usual interesting clinic on surgical diseases of the chest. Dr. Edwin

Beer describes the use of uroselectan as an intravenous pyelograph, ureterograph, and cystograph medium. This article is very interesting and is a method that may prove of distinct value in many cases.

Dr. Gaston Labat has a very interesting discussion on Subarachnoid block or Spinal Anaesthesia. He insists upon a Trendelenburg position immediately after injection has been made and maintains it for three hours. No ephedrine, epinephrine or any other hypertensive drug before or during spinal anesthesia.

NEW AND NONOFFICIAL REMEDIES

Containing Descriptions of the Articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1930. Price \$1.50. American Medical Association, Chicago, Illinois.

This annual revision of "New and Nonofficial Remedies," contains a list and description of all of the newer therapeutic agents acceptable by the Council on Pharmacy and Chemistry of the American Medical Association. This book is so well known that detailed comment seems unnecessary. The purpose of the volume is primarily one of protecting the medical profession and public against fraud, undesirable secrecy and objectionable advertising in connection with proprietary medicinal articles. The volume should be carefully reviewed by every practicing physician who wishes to restrict his therapeutic treatment to agents of proven efficacy.

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HEAD INJURIES

THE RESULTS OBTAINED WITH DEHYDRATION IN FORTY-EIGHT CONSECUTIVE CASES*

TEMPLE FAY, M.D.,

*Professor of Neurosurgery, Temple University
School of Medicine, Philadelphia*

So much confusion exists today in regard to proper methods of treating cerebral trauma, fractures of the skull and intracranial pressure that the physician is frequently in doubt as to which course to pursue. Classifications, warnings, indications, contra-indications, surgery and symptomatic treatments are advocated on all sides.

With a view toward establishing the results that might be obtained in a series of head injuries, treated with regard to the recognized *physiological* necessities of the patient and without regard to classification of fractures or causes of injury, a consecutive group of these cases was observed at Temple University Hospital on the following basis:

1. Every patient who had received a severe head injury and was admitted to the doors of the hospital was included in this series.
2. No matter what the complications or whether the patient lived fifteen minutes or fifteen weeks, the case was included in this series.
3. No case of simple laceration of the scalp or without a history of having been at least unconscious or showing sufficient signs of injury to warrant admission to the hospital has been included in this series.

It is our purpose to establish if possible the exact mortality of head injuries in a consecutive series of cases without permitting any case to be considered as "hopeless," "patient's disease," or other evasive classifications which heretofore have given rise to much doubt concerning statistics reported by many observers.

It has been our hope to establish the true value

of the definite plan of treatment established by us, so as to form the basis for comparison with other methods, carried out with the same strict regard for the inclusion of all types of cases. Based upon the past experience of approximately 700 cases of head injuries, the author has combined what in his experience have proved to be the most promising and fruitful methods of treatment in such cases.

It has been necessary to abandon many of the older fixed ideas regarding cerebral trauma. The recent advances and wider understanding evolved by neurosurgery have made this possible. In the first place, the fracture of the skull is probably of least importance from the standpoint of the physician or the patient. Fractures of the skull are rarely, if ever, the cause of death, although it is conceivable that a spicule of bone may be driven into the medulla and thus terminate the patient's life. The vast majority of cases that die from head injuries succumb to intracranial pressure or hemorrhage. A few may develop complications such as meningitis, pulmonary edema, pyelitis, etc., but the matter of greatest concern should be the prompt treatment and control of intracranial pressure and hemorrhage and the early recognition of the symptoms that require specific means of relief.

The neurosurgeon himself opens and closes the skull, producing "fractures" far greater than those ordinarily seen in head injuries and this simple mechanism is not followed by serious results when properly undertaken. Hence the problem today is the proper management of the many contributing factors and the purpose of this paper is to discuss the practical application of our present methods.

A survey of Table I, including the forty-eight consecutive cases, shows clearly that the relationship of fracture of the skull to the presence or absence of bloody spinal fluid is not the determining factor of life or death. Many cases with extremely bloody spinal fluid and evidence of cerebral contusion are to be found without demonstrable evidence of a fracture by means of the Roentgen

*Read before the Seventy-Ninth Annual Session of the Iowa State Medical Society, Marshalltown, Iowa, May 14, 15, 16, 1930.

TABLE I

Case Consecutive No.	History Number	Cause of Injury	Extent of Injury	Complications			Diagnosis	Operation	Hospital Days	Died Survival Period
				Proved Fracture	Bloody Spinal Fluid	Miscellaneous				
1	N. S. 2	Struck by automobile Unconscious on admission	Laceration occipital region. Fracture occipital bone. Midline to foramen magnum.	+	+		Contusion, cerebral Hemorrhage, subarachnoid Fracture, skull Laceration, scalp Concussion, cerebral	Scalp sutured	23	
2	N. S. 5	Fell ten feet to pavement striking head. Un- conscious on admission. Died in fifteen minutes.	Laceration left occipital region. Hematoma over right ear.	+			Contusion, cerebral Concussion, cerebral Compression, cerebral Fracture, skull Hemorrhage, extra and subdural Hemorrhage, ventricular Laceration, scalp	No puncture patient died too quickly		+15 min.
3	N. S. 6	Fell into machinery. Un- conscious on admission.	Laceration frontoparietal region eight centimeters.				Concussion, cerebral Laceration, scalp	Scalp sutured	8	
4	N. S. 22	Struck by automobile.	Shocked but not un- conscious on admission.				Concussion, cerebral Abrasion, left chin Lacerations, lower extremities Neurosis, posttraumatic		8	
5	N. S. 8	Fell fifteen feet to ground. Unconscious when ad- mitted.	Bulging mass right tem- poral region. Massa- tion of temporal lobe.	+	+		Contusion, cerebral Hemorrhage, subarachnoid Fracture, skull Hemorrhage, extra and subdural Hematoma, scalp		1	+32 hours. 50 min.
6	N. S. 20	Fell ten feet from ladder. Unconscious on admission.	Bleeding from nose and mouth.				Concussion, cerebral Fracture of neck of left radius Sprain, fracture left wrist bones Piosis, eyelid, left Laceration, eyelid, left		5	
7	N. S. 10	Blacklacked on head. Aphasic when admitted.	Contusion of scalp. Tre- mendous fracture extend- ing from left to right.	+	+	Large sub- dural clot, left temporal region.	Contusion, cerebral Extra and subdural hemorrhages Laceration brain Fracture, skull	Exploratory Cranectomy	1	+41 hours 10 min.
8	N. S. 28	Automobile accident. Conscious on admission.	Headache. No laceration.				Concussion, cerebral		17	
9	N. S. 12	Struck by trolley-car. Conscious when admitted.	Bleeding from nose.				Concussion, cerebral		3	
10	N. S. 25	Fell off truck. Dazed on admission.	Headache. Vomited blood.	+	+		Contusion, cerebral Hemorrhage, subarachnoid Concussion, cerebral Fracture, skull		11	
11	N. S. 34	Struck by automobile. Unconscious twenty minutes.	Left temporal laceration. Multiple lacerations of the scalp.		+		Contusion, cerebral Hemorrhage, subarachnoid Concussion, cerebral Laceration, scalp Laceration thenar portion rt. hand	Laceration sutured	29	
12	N. S. 13	Struck by automobile. Stuporous on admission.	Hematoma. Occipital region.		+		Contusion, cerebral Hemorrhage, subarachnoid Concussion, cerebral		4	
13	N. S. 23	Automobile accident. Unconscious.	Severe headache.		+		Contusion, cerebral Hemorrhage, subarachnoid Concussion, cerebral		10	

14	N. S. 14	Fell down subway steps. Dazed.	Laceration left occipital region. Bleeding from left ear.		+		Contusion, cerebral hemorrhage, subarachnoid Laceration, scalp Alcoholism, acute	8	
15	N. S. 16	Struck by automobile. Dazed on admission.	Incontinence.		+		Contusion, cerebral hemorrhage, subarachnoid Concussion, cerebral	5	
16	N. S. 32	Struck by automobile. Unconscious one hour.	Large laceration right parietal region.				Concussion, cerebral Laceration, scalp	9	
17	N. S. 29	Fell eight feet striking head. Conscious when admitted.	No laceration. Headache.				Concussion, cerebral	3	Unsuccessful spinal puncture
18	N. S. 21	Fell down elevator shaft. Unconscious on admission.	Depression left temporal region.				Concussion, cerebral Laceration, scalp Abrasion, left arm Abrasion, shoulder Abrasion, left knee	11	
19	N. S. 31	Fell 15 feet from ladder. Struck back of head. Unconscious on admission.	Laceration of scalp temporal region.		+		Contusion, cerebral hemorrhage, subarachnoid Laceration, scalp Concussion, cerebral Fracture, scapula	14	
20	N. S. 26	Shot through head. Unconscious on admission.	Respiratory failure in twenty minutes.	+	+		Self-inflicted gunshot wound through cranium Died of cerebral injury and respiratory failure		+20 min.
21	N. S. 41	Struck by automobile. Conscious on admission.	Bruise right occipital region.				Concussion, cerebral	9	
22	N. S. 39	Admitted to hospital unconscious.	Hematoma left parietal region. Aphasic.		+		Contusion, cerebral hemorrhage, subarachnoid Concussion, cerebral Hematoma, parietal region	5	
23	N. S. 35	Struck by automobile. Unconscious on admission.	Bruises on forehead.		+		Contusion, cerebral Concussion, cerebral hemorrhage, subarachnoid Laceration, scalp	6	
24	N. S. 44	Struck by car. Unconscious on admission.	Cardiac respiratory failure adrenalin in heart. Artificial respiration.		+		Contusion, cerebral hemorrhage, subarachnoid Concussion, cerebral Laceration, scalp Alcoholism	12	
25	N. S. 38	Struck by automobile. Unconscious on admission.	Laceration left frontal region.				Concussion, cerebral Laceration, scalp	12	
26	N. S. 37	Struck by automobile. Stuporous on admission.	Lacerations left temporal region.		+		Contusion, cerebral hemorrhage, subarachnoid Concussion, cerebral Laceration, scalp		+ 12 hours 15 min.
27	N. S. 40	Gunshot of head. Conscious on admission.	Hole right occipital region.				Laceration, scalp Bullet wound of scalp.	2	
28	N. S. 51	Automobile accident. Unconscious 20 min.	Laceration left forehead.	+	+		Contusion, cerebral hemorrhage, subarachnoid Concussion, cerebral Fracture, skull Alcoholism, acute	12	
29	N. S. 53	Fell striking head. Unconscious on admission.	Laceration of scalp.				Concussion, cerebral	3	

(Continued on next page)

Consecutive No.	Case		Cause of Injury	Extent of Injury	Complications			Diagnosis	Operation	Hospital Days	Died Survival Period
					Proved Fracture	Bloody Spinal Fluid	Miscellaneous				
30	N. S. 50	Struck by automobile. Unconscious on admission.	Contusion of forehead.					Contusion, cerebral Separation of parieto-occipital sutures		7	
31	N. S. 71	Fell and struck head. Conscious on admission.	Laceration left temple.					Contusion, cerebral Laceration, scalp, slight		13	
32	N. S. 47	Struck by automobile. Stuporous on admission.	Laceration right forehead. Respiratory failure.		+	+		Contusion, cerebral Hemorrhage, subarachnoid Laceration, right cheek Injuries, internal Fracture, skull			+2 hours 20 min.
33	N. S. 49	Struck by automobile. Unconscious on admission.	Deep laceration of scalp and forehead.			+		Contusion, cerebral Hemorrhage, subarachnoid Concussion, cerebral Laceration, scalp	Laceration sutured	6	
34	N. S. 72	Struck by automobile. Stuporous on admission.	Hematoma post-occipital region. Bruise of left scalp region.					Contusion, cerebral Comminuted fracture of left scapula Fracture of left clavicle		28	
35	N. S. 52	Struck by automobile. Unconscious 15 min.	Headache.					Contusion, cerebral Hemorrhage, subarachnoid		4	
36	N. S. 60	Struck by automobile. Unconscious 50 min.	Laceration of scalp.					Contusion, cerebral Laceration, scalp Contusion, back Fracture, 7th and 8th ribs	Scalp sutured	8	
37	N. S. 62	Automobile accident. Unconscious on admission.	Lacerations. Respiratory failure.					Contusion, cerebral Laceration of scalp Large hematoma left eye	Note: No spinal puncture		+3 hours
38	N. S. 64	Beaten by husband in drunken brawl. Hysterical. Fainted twice.	Bleeding from mouth, nose and left ear. Abrasions left side of head.					Contusion, cerebral Bruises to body Alcoholism, acute		5	
39	N. S. 66	Fell down flight of stairs. Unconscious. Not hospitalized until 10 days following injury. Stuporous on admission.	Linear fracture skull occipital region, and one lateral to median line. Yellowish discharge exuding from same.		+	+	Radical mastoid right cerebellar abscess.	Contusion, cerebral Hemorrhage, subarachnoid Fracture, skull Concussion, cerebral Posttraumatic edema	Radical mastoidectomy	9	+9 days
40	N. S. 57	Motorcycle accident. Unconscious on admission.	Compound fracture of forehead.		+	+		Contusion, cerebral Hemorrhage, subarachnoid Laceration, brain Laceration, scalp Fracture, compound, skull	Removal of bone fragment, macerated brain tissue and plastic, lacerations	4	+4 days
41	N. S. 65	Struck by automobile. Coma on admission.	Depressed fracture parietal region.		+	+		Contusion, cerebral Hemorrhage, subarachnoid Fracture, skull Concussion, cerebral			+1 hour 20 min.
42	N. S. 74	Struck by automobile. Unconscious on admission.	Laceration of scalp			+		Contusion, cerebral Hemorrhage, subarachnoid Concussion, cerebral Laceration, forehead	Laceration sutured	5	

43	N. S. 75	Struck by trolley-car. Unconsciousness time unknown.	Laceration of scalp. Brush-burn.				Laceration, scalp Concussion, cerebral Laceration, perineum	Lacerations sutured	32
44	N. S. 76	Struck by automobile. Unconscious on admis- sion.	Laceration on vertex of head.				Clear fluid Concussion, cerebral Laceration, scalp Brush-burn left side of ear Alcoholism, acute		11
45	N. S. 77	Automobile accident. Unconscious on admis- sion.	Swelling discoloration left temporo parietal region.	+	+		Concussion, cerebral Fracture, depressed left temporal bone Hemorrhage, subarachnoid Concussion, cerebral		11
46	N. S. 78	Struck by automobile. Unconsciousness time unknown.	Tenderness and swelling left occipital region.	+	+		Concussion, cerebral Fracture, scalp left occipital bone Hemorrhage, subarachnoid Concussion, cerebral Fracture, skull		9
47	N. S. 79	Struck by automobile. Conscious on admission.	Bruise of scalp.			+	Concussion, cerebral No fracture Concussion, cerebral Hemorrhage, subarachnoid		17
48	N. S. 80	Struck by automobile. Dazed on admission.	Laceration of forehead.	+	+		Laceration, forehead Concussion, cerebral Concussion, cerebral Hemorrhage, subarachnoid Fracture, skull	Laceration sutured	6

ray. Other cases of fractured skull exist without bloody spinal fluid, presumably therefore without gross cerebral contusion.

The entire series shows 20.8 per cent mortality, inclusive of every case brought within the doors of the hospital where signs of life could be detected. Two cases, 4.1 per cent, died within twenty minutes of admission to the hospital and before the patients could be admitted to the neurosurgical service. Three other cases, 6.2 per cent, lived a period of three hours from the time of entering the hospital. Thus we note that five cases, or 10.4 per cent did not survive a three hour period or a sufficient length of time to even permit the emergency measures usually applied to correct the profound physiological damage produced by the injury.

No case admitted to the hospital has been considered hopeless until every measure has failed to maintain or prolong life. It has been astounding to find that cases which would have been considered hopeless five years ago have recovered, while even cases that appeared to be expiring at the time of admission (see case 24, Fig. II) have responded sufficiently to permit the satisfactory management of the hemorrhage and pressure and their ultimate recovery. If the series be analyzed from the standpoint of death after the sixth hour of admission, the mortality is 10.4 per cent. It will be noted that in this group two of the five cases were operated upon and died in spite of or because of the operation. It is needless to say that operative relief for fracture of the skull has long since been abandoned, and in this entire series only two cases in our judgment required operative intervention and this final means of relief was resorted to only when all other measures had failed. The two cases operated upon represented 4.1 per cent of the series. It will be noted that the remaining cases, 6.2 per cent, died before the third day. The complications given in the table show the futility of all measures directed toward their relief.

From this series, including all types of cerebral trauma received at Temple University Hospital from September, 1929 to March, 1930, the mortality was 20.8 per cent and in the entire series, if the patient survived the sixth hour after admission, the mortality was 10.4 per cent.

We feel justified, therefore, in attributing to our method the reduction of mortality in head injuries to 10.4 per cent when six hours or more had made it possible to effectually apply the means undertaken for the relief of intracranial injuries. So far as we are able to determine, the series inclusive of the entire group represents a lower mor-

tality than any heretofore presented, and it is the author's firm conviction that in his own experience this method has been responsible for a decrease of 15 per cent over any of his former series. We feel justified, therefore, in presenting our method based upon our own interpretation of such cases and with the considerations which in our opinion are the determining factors as to whether certain border-line cases may survive.

Certain former papers, (4 to 17, inclusive), have dealt with the considerations surrounding intracranial pressure mechanisms and hemorrhage and what we believe to be the responsible factors for the symptoms disclosed by the patient. From the time of admission the patient's temperature, pulse and respirations are taken every fifteen minutes, blood pressure every half hour and upon every patient admitted there has been a diagnostic lumbar puncture, which affords the opportunity of determining with a mercury manometer the exact intracranial pressure of the cerebrospinal fluid and whether or not bloody spinal fluid is present. The entire course of treatment is determined by these findings and their relation to one another.

It is our opinion that operation is indicated under only two conditions: (a) a compound fracture of the skull (with or without comminution), where simple cleansing of the wound is required, (b) extradural or subdural hemorrhage (middle-meningeal or venous) where progressive focal signs are present.

Rarely, if ever, does a depressed fracture require elevation during the early days following injury unless this depressed fracture produces focal or dangerous pressure symptoms. As an analysis of the forthcoming cases will disclose, these were the only two indications for the operations performed in this group and in each instance in spite of the operative assistance the patient succumbed. In the other cases where the operation was avoided or delayed the patient recovered. We are convinced that early surgery of the "decompressive" type is unjustified and frequently responsible for adding insult to injury, bringing on a fatal issue when the patient's chances might have been better without such an operation. Too frequently we hear that phrase "the patient died of a fractured skull" and this seems to relieve the surgeon of all responsibility for his act. Too frequently the medical profession assumes that the patient has a "fractured skull" and considers death as almost inevitable. Certainly if the patient succumbs it has become accepted as a fact that the condition offered no hope of treatment.

I have not permitted this attitude on the part of the resident physician or any associated in the work of treating these cases. In fact the attending

physicians have been required to explain why the patient succumbed and justify the cause of death. In this way every effort has been expended to maintain the life of the patient even in the face of apparently hopeless odds. The results have proved that at least ten to fifteen per cent of the so-called hopeless group have thus survived, and they warrant the statement that no case should be considered hopeless until every effort now known to science has failed.

The tremendous number of cerebral injuries occurring each day throughout the country and the increasing violence produced by the present rapid transit and industrial age in which we live, requires the most timely consideration on the part of the medical profession to treat this type of case. Too frequently the victims of severe cerebral injuries are young and economically active. They are made up for the most part of the future generation, and the bread winners of the present day. It is therefore a greater social loss and a more profound economic waste than is presented by any other problem in modern medicine, other than the epileptic and mental defective. Though cancer has long been considered the scourge of the human race it takes its toll during the closing years of life and does not destroy or incapacitate the young and potential forces of the future.

For this reason the problem of cerebral trauma has been given the closest consideration by a group of active workers during the past five years in order to devise if possible a better means of treatment for the preservation of these young lives and the establishment or readjustment after trauma, so that they may again be returned to health and economic value, recognizing as we have the futility of saving the lives of a certain number of severe cerebral injuries only to condemn them to an institutional or dependent existence.

THE METHOD OF TREATMENT

As soon as a case of head injury is presented to the receiving ward of the hospital it commands the immediate consideration of the house physician. This is imperative. The patient's temperature, pulse and respiration are taken and recorded. Lacerated or bleeding surfaces are staunched, and antiseptics applied with sterile dressings. Too frequently valuable time is lost while the resident practices suturing of the scalp. No attempt to repair superficial injuries or lacerations is permitted at the time, since these are better taken care of in the operating room the following day. Every effort is directed immediately toward the treatment of shock and the considerations surrounding the

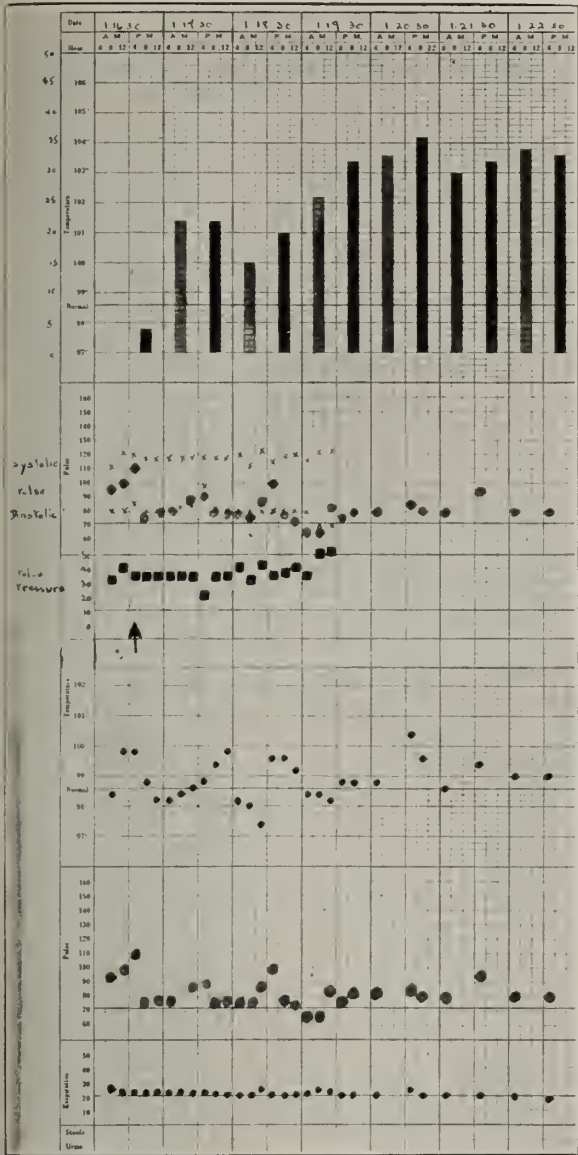


Figure I. Charts showing intake (black) and output (gray) systolic, diastolic, pulse pressure and temperature pulse and respirations. Lumbar puncture indicated by arrow. Uncomplicated case of cerebral concussion.

oncoming intracranial pressure which is almost inevitable.

No neurological examination is made at this time and no x-ray is permitted, in order that no time may be lost in awaiting the findings of an x-ray which are usually unsatisfactory and will not aid in the subsequent treatment. Where depressed fractures of sufficient degree to require elevation are present they are easily detected at the initial examination. Where compounded or comminuted fractures are present they are recognizable at once by the ordinary detailed inspection and examination of the injured site.

Certain general observations as to the patient's

condition are of course evident; the probable cause of the injury, the evident site of the blow, the direction of the force with cognizance of its fracture possibilities. The question of stupor, aphasia, or any evident paralysis is noted. The blood pressure is taken at once and the pulse pressure obtained from this reading.

Shock is the first consideration above all else and this is determined by (a) subnormal temperature, (b) a diastolic pressure below 60, and (c) a pulse usually above 120. The extremities are usually cold and wet. These considerations will be taken up in detail later but it has been our practice to consider the patient in shock until the temperature rises to normal or above.

The treatment of shock consists of warm, dry clothing, heat applied to the body surfaces, atropin in proper doses given to prevent further loss and evaporation of fluid from the skin surfaces, and stimulation directed toward the vasomotor bed so as to increase diastolic pressure. Pituitrin or strychnine (ergot if necessary) is given to assist in the readjustment of the vasomotor relaxation. Adrenalin and caffeine are never permitted excepting as temporary violent stimulants when signs of extremus are present as these drugs have been noted frequently to improve the situation only momentarily and subsequently to further depress the cardiac and circulatory factors which require constant strengthening.

We now come to the most important deviation from the accepted methods of treating shock in the presence of oncoming intracranial pressure. In the past it has been customary to give infusions of normal saline solution in fairly large quantities to assist in the treatment of shock. Where there is no intracranial factor concerned this remains of course an important adjunct. Too frequently in the past the giving of this fluid intravenously only hastened the oncoming cerebral edema, as the work of Weed^{31, 35, 36}, clearly shows that rapid production of cerebrospinal fluid follows the introduction of normal saline solution intravenously. These considerations have required a modification in the treatment of shock so as to prevent the even greater complication of cerebral edema and intracranial pressure.

We are indebted to Howe^{23, 24} and Peet²⁹ for the introduction of hypertonic glucose solution. The adoption of the sterilized and balanced 50 per cent solution (Lilly product designed for use in diabetes) has been found to be most satisfactory. In the adult, doses of 40 to 60 c.c. may be given intravenously which are usually sufficient to meet the requirements during the period of shock in the following ways:

When introduced into the blood stream the consequent hypertonic phase within the vessels draws fluid rapidly from the "interstitial compartment," see Gamble^{21, 22} which includes not only the body tissue spaces, but also the cerebro-spinal fluid reservoir. Thus the patient's own tissue fluids are utilizable to increase the blood volume, so necessary in shock. Not only is this

accomplished, but the process of cerebral edema is temporarily defeated and intracranial pressure reduced. The increase in blood volume also tends to raise blood pressure, especially the diastolic pressure. This is the most desirable response, for with the increased blood volume and the return of diastolic blood pressure, circulation approaches normal and the pulse improves.

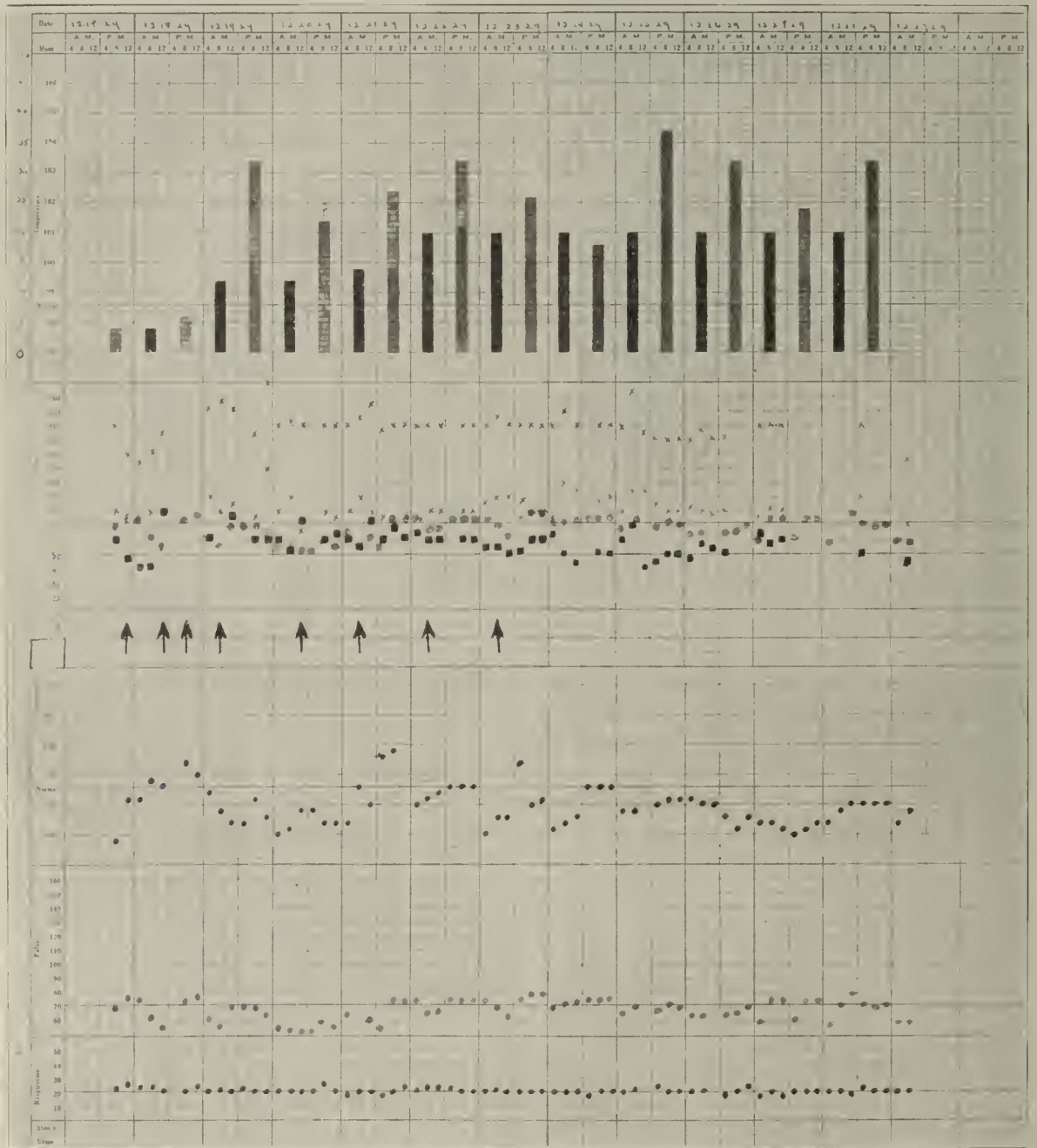


Figure II. Charts showing the daily relationship of intake of fluids (black) and output (gray), blood pressure, pulse pressure, pulse, spinal drainage and T.P.R. in a case (24) of severe cerebral concussion and contusion without demonstrable fracture of skull but with very bloody spinal fluid. Note period of shock; followed by cerebral edema (pulse falling, pulse pressure rising) spinal drainage indicated by arrows. Fluid intake limited to below 16 ounces for first four days. Note excessive output (hydrated alcoholic with stored fluid). Final recovery and discharge on 20 ounces total fluid intake per day.

Taken all in all, glucose has been found to be the ideal hypertonic solution and its effects may be apparent for approximately four hours. Most important of all, it saves the giving of additional fluid to the patient and permits a safe period during which further studies may be carried out, as shock is promptly dispelled. It must be borne in mind that in certain cases where loss of fluid through the skin or into the interstitial compartment is profound, that normal saline in small quantities may sometimes be required along with the glucose. Under these conditions it has been our custom to introduce 50 or 60 c.c. of 50 per cent glucose followed by 100 c.c. of normal saline. Both the glucose and the saline may be repeated when necessary, should the blood volume and response to shock be insufficient from the initial dose. It is most important, as will be seen later, that the amount of fluid given to the patient be the minimum required to meet the condition of shock, as this fluid may play a large role in the future management of the intracranial pressure which becomes manifest usually from the fourth to eighth hour after a severe injury.

With the reaction of the patient from shock further studies may be carried out. A lumbar puncture with careful manometric pressure readings *must be done* and irrespective of the claims made by those opposed to lumbar puncture, an intelligent management of the case is impossible without knowledge of the pressure mechanism and the presence of bloody spinal fluid, which is frequently encountered where no signs or symptoms may disclose its presence. The future management of the case will depend entirely upon this finding as the treatment in the presence of bloody spinal fluid requires additional consideration, whereas in the case of clear spinal fluid it becomes simply a problem of the control of intracranial pressure.

A careful neurological examination should be made, with particular reference to the size of the pupils, their reaction to light and the presence of hemianopsia, if this can be demonstrated. Facial weakness should be carefully sought even in semi-stuporous patients. This can be demonstrated usually by pressure upon the supra-orbital nerves.

Aphasia, in contra-distinction to stupor, is one of the most important signs to be considered. A patient may give the impression of stupor when he can neither speak nor understand. This may be an important focal sign which is often mistaken for stupor, and in reality the location of the lesion might be determined by this finding alone. If the patient be right-handed the lesion is probably in the left Sylvian area. There may be an associated

weakness or paralysis of the right arm and if so aphasia must be carefully considered. The best means of determining the difference between aphasia and stupor is to produce an extremely painful stimulus on the patient and note his reaction. If partly stuporous or wholly unconscious he may rouse sufficiently to make purposeless efforts to react in a general way to the pain. On the other hand, if aphasic, the patient will attempt to remove the painful stimulus in the ordinary way. Thus if severe pressure be made upon the supra-orbital nerve the face may draw up on the side of the pressure, but the patient may make also, a definite effort with the unparalyzed hand to remove the painful pressure exerted by the examiner. When stupor or aphasia is profound the most responsive area to pain will be found in the upper and inner aspect of the thigh and here if the folds of the skin are grasped firmly and pinched with force a marked reaction on the part of the patient is usually forthcoming. If no response can be obtained from this area, the patient may be considered profoundly stuporous. Rectal dilatation at times may be a means of arousing such a case. The test determines the degree of physiological continuity of the cortex, which still remains, and where all efforts fail to rouse the patient, the cerebral injury or pressure may be considered as being extremely widespread.

The most frequent finding is that the patient shows extreme restlessness and violently resists restraint, so that if cerebral bleeding is present this may be greatly increased and the condition of the patient becomes worse for the need of quiet and relaxation. Here it is important to give sodium luminal, grains 1 to 3 hypodermatically and large doses of chloral and bromide by rectum. An adult dose may be 15 grains of chloral and 30 grains of bromide by mouth, or if impossible to administer the sedative in this manner, double the dose by rectum. The same dose may be repeated in four to six hours if necessary. Morphine or its derivative should never be given unless other sedatives fail, for there usually ensues respiratory difficulty due to intracranial pressure and edema with additional depressor effect of the narcotic.

The neurological examination should also include testing of the reflexes, especially the Hoffman reflex¹¹ (snapping the middle fingernail with the hand in midpronation. If accompanied by a response of approximation of the index finger and thumb, the sign indicates involvement of the upper motor neuron for the hand center). The Babinski reflex is extremely important and must be carefully taken, using a variety of degrees of plantar irritation on the outer aspect of the sole. The Oppenheim sign may often be obtained when

others are absent, and suggests the laterality of the lesion. The tendon reflexes may give a clue if unequal and unilaterally exaggerated, but frequently their entire absence makes these signs unreliable. Clonus is rarely present during the early stages following a head injury. A most important observation when profound stupor is present may be the determination of muscle tone by grasping the patient's wrists and lifting the arms directly upward to their full length, permitting them to fall of their own weight against the sides. On the side of a focal paralysis the extremity will frequently demonstrate a flail-like reaction, falling heavily and limply to the bed. The uninvolved extremity will also fall promptly but one may observe the more gradual return of the part to its former position.

The temperature, pulse and respirations have been determined every fifteen minutes, the blood pressure every half hour and the treatment for shock instituted with the giving of 50 per cent glucose. The period of shock should have been passed within the first one or two hours following admission. The necessary care of the wound, the above neurological observations, the spinal fluid pressure and the determination of the character of the fluid now presents sufficient evidence to determine the subsequent course of action. This may fall within three large groups with occasional overlapping, and consequent modifications of the treatment. Representative cases from each group will be considered in detail, the exceptions and the combinations of treatment depending upon the best judgment of the physician in charge.

It is therefore necessary to outline certain fundamental considerations upon which the basis for the treatment will depend.

THE PULSE RATE

From the standpoint of an acute cerebral injury we may assume that the patient probably had no organic vascular disease prior to the injury, although frequently exceptions will occur. The pulse rate therefore must be viewed in the light of its determining factor, as changes in the pulse rate become important considerations in the progress of the patient.

It must be borne in mind that the vagus control of the pulse rate produces normally approximately eighty beats per minute. If irritation of the vagus center is present or higher centers influence the vagus, the rate may fall as low as forty and I have observed in one case a rate of thirty-eight, present for a period of twenty-six hours. It is unusual to find a rate which falls below fifty unless heart block has been induced by digitalis, or some dis-

turbance of the auriculoventricular bundle is present within the heart itself. When the pulse rate falls to seventy this should be cause for close observation and if it reaches sixty-eight or below the attending physician should search for the cause of this irritation. Bloody spinal fluid, increased intracranial pressure, edema of the cardiac center, or middle-meningeal hemorrhage must be considered. Consequently the record of the pulse at fifteen minute intervals throughout the first forty-eight hours is of extreme value in determining the appearance of complicating factors which require early attention.

On the other hand, should the vagus center be paralyzed or temporarily lose control of its regulatory action on the heart a rate of over 120 will probably ensue. No information therefore can be expected of the pulse above 120 in regard to intracranial pressure. If vagus tone has thus been removed one must not overlook the effect of atropin if given during the period of shock as this drug tends to release vagus influences.

A pulse rate over 120 may be considered as the demand of the heart for more fluid volume, and is frequently found in shock. The rate must be considered in the light of sympathetic irritation, restlessness, or loss of circulatory fluid volume and treated accordingly. In the absence of a demonstrable sympathetic irritant (hyperthyroidism, emotion, restlessness, etc.) the pulse rate of 130 or above indicates the need for more fluid volume and this may be met by repeating the injection of 50 per cent glucose with an appropriate small amount of normal saline solution if necessary.

The physician must have clearly in mind the fact that fluid, though given intravenously, may rapidly leave the circulating blood stream to be deposited in interstitial spaces or given off by perspiration from the skin surfaces. This loss of fluid volume may be directly from the vascular compartment and the circulation is temporarily unable to reclaim this fluid, so that a rising pulse rate indicates the need for further administration of appropriate solutions to maintain blood volume. As pointed out above, great care should be taken not to introduce fluid that may be rapidly dissipated into the tissues, for fear of precipitating cerebral edema; hence hypertonic glucose solution should be resorted to, to assist in reclaiming vascular volume during this period of temporary disturbance.

Gamble²² has recently shown that the fixed base present in the blood and interstitial spaces is also an important factor in the determination of fluid volume and its maintenance.

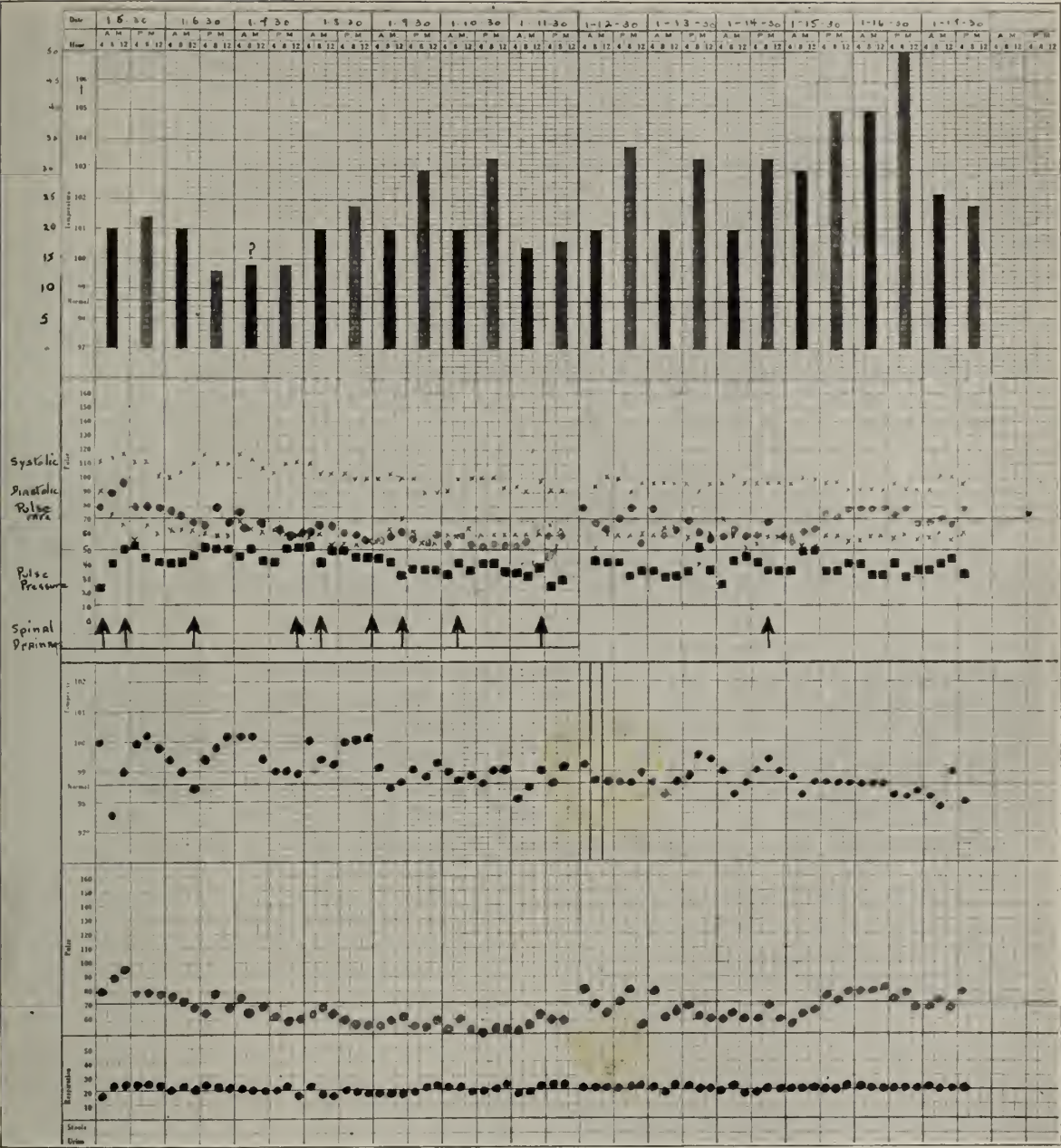


Figure III. Chart showing the progress in a case (28) of fracture of the skull and cerebral trauma with bloody spinal fluid. Note pulse pressure variations, pulse rate and relation to spinal drainages (arrows). Note period of shock indicated by temperature. Low pulse persisting over several days. Intake (black) raised above 20 ounces on the eleventh day.

Landis²⁵ has shown that anoxemia favors increased permeability and this rapidly permits interstitial edema. It is therefore well to see that the patient obtains adequate oxygenation and to remove any respiratory obstructions, even if necessary introducing an intratracheal catheter to permit direct oxygen insufflation when required. In cases of respiratory failure this method of introducing oxygen removes the need for artificial respirations and in one instance life was prolonged

for sixteen hours by this means alone, after complete respiratory failure had occurred.

THE CHARACTER OF THE PULSE

Much can be determined by the character of the pulse in regard to two things: the peripheral resistance, (vasomotor tone, capillary bed) which it is working against, (also determined in terms of diastolic pressure) and the need of the heart for stimulation. Too frequently the physician is in-

clined to stimulate with drugs acting primarily on the heart, when measures should be directed toward constricting the vascular bed so that sufficient resistance be given to each contractile effort of the ventricles to prevent the rapid snapping and exhausting efforts of a heart working on depleted vascular volume without peripheral resistance. In the presence of a weak and thready pulse with clammy, cyanotic extremities, the fault usually lies with the peripheral vasomotor bed. The radial pulse is felt to be without the resilience seen in an overfilled system, such as is found in hypertension or certain toxic conditions.

The analogy may be drawn to a fire hose without a nozzle. A stream of fluid passing through this hose finds practically no resistance and hence there is no "back pressure." This is similar to the dilated state of the capillaries in the periphery during shock and vasodilatation, the blood running around the circuit without delay. Returning to the fire hose, if the nozzle be placed upon the end and the outlet thus reduced, "back pressure" becomes sufficient to require a firm fixation of the nozzle by strong hands. The pulsating tortuosity of the hose gives evidence of the fullness of volume working against resistance. This is true of the peripheral capillary bed, which if properly contracted, produces a rise in diastolic pressure and affords a full resistance for the contracting ventricles of the heart to work against.

The important phase of this physiological consideration is two-fold. In the first place, when diastolic pressure in the peripheral capillary bed has fallen so that it is less than 40, oxygen leaves the red blood cells according to the laws of oxygen dissociation long before it reaches its intended destination. The outlying cells are thus denied the proper amount of oxygen and cyanosis is usually apparent. With the anoxemia, increased permeability occurs (Landis) and edema as well as the rapid loss of function of the tissue cells themselves. One must realize that the periphery is not to be considered only the hands and feet, but is as truly represented in a similar degree in organs close to the heart and in the heart itself. Thus the liver, kidneys, brain and other important structures suffer greatly during periods of vasomotor relaxation and anoxemia. The object should be to maintain oxygen in not only the vital centers but to the entire organism as death is not alone the failure of a single center but frequently the overwhelming accumulation of gradual functional loss throughout the structures of the entire body.

The character of the pulse therefore becomes important in determining the probable vascular vol-

ume and the resistance which the cardiac pump meets in the peripheral capillary bed.

We have come to consider the heart rate in intracranial trauma as being significant of vagus irritation if below 70 and as the "cry of the circulation for more fluid" if the rate be above 120, with allowances for age and evident cardiovascular disease, which must be taken into consideration.

TEMPERATURE

Temperature is for the most part influenced by the regulation of evaporation of moisture from the skin surfaces. The subnormal temperature noted in shock is probably due to the rapid loss of fluid through the skin onto the body surfaces. It becomes important therefore to maintain a dry skin surface to check this source of heat loss and the application of external heat to assist in the body's reestablishment of this important factor. The duration of the subnormal temperature, therefore, may be considered as an indication of the period of shock and the time for readjustment of vasomotor relaxation associated with a leaky skin. In hyperthermia the skin is usually dry and hot with little available moisture for evaporation and hence insufficient radiation. Temperatures rapidly rising as high as 107 and 108 indicate hemorrhage within the brain substance, usually between the striate region and the medulla. Transitory disturbances of the vasomotor or heat regulating centers need offer no concern provided temperature is not permitted to go above 103. Sponging should be introduced when the temperature reaches 103, and maintained at half-hour intervals, if there is a tendency toward a further rise. This is best accomplished by applying a wet bath towel to the entire exposed body surfaces, using tepid water and leaving the skin wet and exposed, permitting rapid evaporation, meanwhile protecting the patient from any draught. It is useless to expect results if the skin is dried after the sponging; it must be kept wet constantly and exposed without coverings. Too frequently the patient is heavily covered with blankets which do not permit proper radiation.

I have noted a fall of one and one-half degrees of temperature within ten minutes following such methods of sponging. Occasional continuous cold clonic irrigations, composed of hypertonic magnesium sulphate solution, may be resorted to when the danger point is exceeded. Rapidly rising temperatures above 105 usually indicate a terminal condition and strongly suggest an intramedullary hemorrhage within the brain substance. The temperatures above 107 rapidly destroy the function of the brain cells, if acquired in a short space of time, and do not yield to methods of body heat

reduction. It is therefore important that rapid rises of temperature be checked in their early stages of progress, and imperative that sponging be resorted to when 103 degrees are registered by the patient.

The author has used phenacetin in small doses (grains 3) to assist in the production of a moist skin and thus favor a reduction in temperature. The temperature therefore when taken at fifteen minute intervals may indicate the period of shock as well as the presence of a deep seated intramedullary hemorrhage. Few cases are on record where a patient with an intramedullary hemorrhage larger than a walnut has survived, whether spontaneous or secondary to trauma. The profound physiological and neuropathological disturbances created by such a lesion are almost invariably fatal. We feel certain therefore that the fifteen minute temperature record will indicate the duration of the period of shock in the management of the case; also that when high temperatures are present they may clearly predict complication or the probable outcome of the case long before the terminal stage is reached.

RESPIRATIONS

The respiratory rate is of extreme importance as it frequently gives warning in advance of an impending catastrophe. When the rate is above 26 cerebral irritative factors should be suspected and the lumbar puncture usually reveals bloody spinal fluid. Respiratory rates which reach 40 indicate a profound cerebral disturbance and are in themselves not as serious as the fact that such rapid breathing produces hyperventilation and the rapid loss of CO_2 which in turn favors alkalosis and edema. As alkalosis is undesirable because of the associated tissue edema, it has been our custom to permit the rebreathing of CO_2 by placing a wet towel fashioned in the shape of a cone over the patient's nose and mouth. A stream of oxygen may be added through a small tube into the cone if rebreathing be confined to a closed system. This method not only stimulates deeper respiration but frequently diminishes the rate and may in border-line cases be extremely beneficial.

The most important significance lies in respiratory rates below 18. As the respiratory rate diminishes, there is usually associated intracranial pressure, which may be relieved by spinal puncture and drainage. Edema of the respiratory center may also produce a fall in respiratory rate but this is usually associated with shallow respirations of the Cheyne-Stokes type. Hemorrhages into the floor of the fourth ventricle frequently produce this type of breathing. Shallow respiratory rates indicate a failing center. Respiratory stimulants,

such as atropin, caffeine, and CO_2 are indicated when respirations fall below 16. Fifty per cent glucose by vein, or magnesium sulphate by mouth may assist in reducing medullary edema and thus relieve a respiratory rate which is impaired by pressure or actual edema. The patient should be turned onto the face and the foot of the bed elevated 45 degrees. Pillows placed under the chest make it possible for satisfactory breathing to be maintained. I have seen this measure alone relieve Cheyne-Stokes respirations.

Emergency measures should be introduced when respirations reach 10 or 12 per minute, as frequently a complete failure may occur at this point. One should always be prepared to introduce an intratracheal catheter (woven) so that oxygen may be given directly into the lungs and thus avoid the traumatizing effect of prolonged artificial respiration.

In several cases this has been the means of saving the patient's life when sufficient time has not elapsed to deal with the pressure mechanism until after respiratory failure has developed. Sufficient exchange of oxygen and CO_2 occurs in the lung without the need of inspiration and expiration. Respirations may spontaneously recur even after a period of an hour or more of complete cessation, providing sufficient oxygen has been supplied to the lung bed and circulation maintained. Morphine or its derivative should never be given where respiratory embarrassment has been indicated by a rate below 18 as prompt respiratory failure has been observed under such conditions (even after the use of one-fourth grain of codeine).

A falling respiratory rate in the presence of clear spinal fluid should give the physician anxiety over the possibility of a middle-meningeal hemorrhage. In uncomplicated cases where pressure is the cause of the fall in respiratory rate, magnesium sulphate crystals, one and one-half ounces in water by mouth, or three ounces by rectum will be found efficacious in relieving the respiratory depression.

We believe that a fifteen minute respiratory record thus discloses the load placed on the respiratory centers and frequently indicates increased intracranial pressure, when the rate is below 18, shallow or irregular. Rates above 30 should be considered in terms of hyperventilation or alkalosis. Results of prolonged hyperventilation are to be avoided.

BLOOD PRESSURE

In maintaining a half-hour blood pressure record the physician is most concerned with the diastolic reading. Systolic pressures are of little or no concern as long as they are maintained above 75

TABLE II
ANALYSIS OF DEATHS

Case		Survival Period After Admission	Cause of Injury	Extent of Injury	Complications	Diagnosis
Consecutive No.	History Number					
2	N. S. 5	15 minutes	Fell ten feet to pavement striking head. Unconscious on admission	Laceration left occipital region Hematoma over right ear	Respiratory failure	Contusion, cerebral Concussion, cerebral Compression, cerebral Fracture, skull Hemorrhage, extra and subdural, Hemorrhage ventricular, Laceration, scalp.
20	N. S. 26	20 minutes	Shot through head. Unconscious on admission	Respiratory failure in twenty min.	Shock	Self-inflicted gunshot wound through cranium. Died of cerebral injury and respiratory failure.
41	N. S. 65	1 hr. 20 min.	Struck by automobile. Coma on admission	Depressed fracture parietal region	Masseration of brain	Contusion, cerebral Hemorrhage, subarachnoid Fracture, skull Concussion, cerebral
32	N. S. 47	2 hr. 20 min.	Struck by automobile. Stuporous on admission	Laceration right forehead. Respiratory failure	Shock respiratory failure	Contusion, cerebral Hemorrhage, subarachnoid Laceration, right cheek Injuries, internal
37	N. S. 62	3 hours	Automobile accident. Unconscious on admission	Lacerations respiratory failure	Extensive brain damage	Contusion, cerebral Laceration of scalp Large hematoma left eye
26	N. S. 37	12 hr 15 min.	Struck by automobile. Stuporous on admission	Lacerations left temporal region	Subcortical hemorrhage	Contusion, cerebral Hemorrhage, subarachnoid Concussion, cerebral Laceration, scalp
5	N. S. 8	32 hrs. 50 min.	Fell 15 feet to ground. Unconscious on admission	Bulging mass right temporal region. Masseration of temporal lobe	Extensive brain damage	Contusion, cerebral Hemorrhage, subarachnoid Fracture, skull Hemorrhages, extra and subdural. Hematoma, scalp
7	N. S. 10	41 hrs. 10 min.	Blackjacked on head. Aphasic when admitted	Contusion of scalp. Tremendous fracture extending from left to right	Exploratory operation subdural hemorrhage. Massive cerebral contusions	Contusion, cerebral Extra and subdural hemorrhage. Laceration, brain Fracture, skull
40	N. S. 57	4 days	Motorcycle accident. Unconscious on admission	Compound fracture of forehead	Operation Debridement Meningitis	Contusion, cerebral Hemorrhage, subarachnoid Laceration, brain Laceration, scalp Fracture, compound, skull
39	N. S. 66	9 days	Fell down flight of stairs. Unconscious. Not hospitalized until 10 days following injury. Stuporous on admission	Linear fracture skull occipital region, and one lateral to medial line. Yellowish discharge exuding from same	Bilateral otitis media. Cerebellar abscess Subdural hemorrhage. Subarachnoid hemorrhage	Contusion, cerebral Hemorrhage, subarachnoid Fracture, skull Concussion, cerebral Posttraumatic edema

or below 200. The systolic reading represents the driving force of the heart against the peripheral vascular resistance and as the cardiac mechanism is usually organically uninvolved in cases of cere-

bral injury it is only necessary to maintain sufficient pressure to drive the blood around the vascular circuit.

Diastolic pressure, however, represents the

peripheral vasomotor bed and its tone. In reality diastolic pressure is life itself, although too frequently the physician disregards this important figure. It represents the constant low ebb of vascular circulation in terms of the diameter of the peripheral capillaries, thus as already noted above under the pulse, when the capillaries are widely dilated the blood passes through the larger arterioles without entering the smallest capillaries. As the vast majority of functioning tissue cells are supplied from the capillary meshwork, if life is to be maintained, circulation must reach these tissue cells not only with nutrition values but with oxygen, which must be maintained at an oxygen tension of approximately 20 mm. hg. Thus at 60 mm. hg. (MacLeod) blood may be nearly saturated with oxygen, whereas at pressures below 50 mm. it readily loses oxygen, so at 10 mm. there is complete reduction. When diastolic pressure reaches 40 the oxygen dissociation curve has reached a point where oxygen on the red cell is no longer available when it reaches the capillaries, and thus anoxemia may be present even though the red cell passes close to the tissue requiring its normal supply of oxygen. As a shift of the PH to the acid side gives a better utilization of the combined oxygen on the red cell it will be seen that hyperventilation and alkalosis enhances the degree of anoxemia by increasing the tendency for hemoglobin to retain its oxygen even under somewhat favorable pressures. Landis²⁵ has pointed out that anoxemia increases permeability and permits transudation of fluid into the capillary interspaces at four times the normal rate. Thus edema will add to the circulating deficiency, increasing in a vicious cycle the limitation of oxygen to the tissues, without which they cannot carry on their normal physiological function.

In diastolic pressure therefore we are dealing with the crux of the situation and this must be maintained above 40 mm. hg. by every effort within our means, as the function of the cells themselves which determines the patient's existence will depend upon this factor alone. The physician's attention should therefore be directed toward contraction of the peripheral capillary bed in shock and at times of vasomotor relaxation. Increase in diastolic pressure favors more uniform oxygen dissociation and better utilization and thus maintains the functions of the tissue cells. Due regard must be given to conditions that tend to promote alkalosis and edema, and corrective measures instituted early.

The cold, cyanotic, clammy extremities clearly tell their own story of insufficient oxygen, edema, capillary permeability and failure of the cells to

continue their physiological function. The physician should bear in mind that the periphery is not only the hands and feet, which can easily be observed, but a similar circulatory "periphery" exists in the organs, such as the brain, liver, kidneys, and heart. It may be expected therefore that if diastolic pressure is not maintained the functions of these organs will soon be diminished and inevitable accumulative tissue cell death occur. The summation of each added failing integrant brings the final dissolution of the patient.

For this purpose systolic and diastolic pressure readings are carefully maintained throughout the danger period of the patient. These we consider among the most important observations in the entire management of the cerebral trauma cases. By subtracting the diastolic from the systolic pressure, one obtains *pulse pressure* and by charting the pulse pressure it is evident "which way the wind blows." A rising pulse pressure usually is obtained when diastolic pressure begins to fall and systolic pressure fails to compensate for the deficiency. Occasionally a rapid fall of both diastolic and systolic pressure may give little change in pulse pressure, but this is usually detectable and when diastolic pressure reaches 60 or below, active means for its correction should be employed. Stimulation of the peripheral vasomotor bed with pituitrin, strychnine, ergot, and ephedrine may be resorted to. Fifty per cent glucose solution increases blood volume and viscosity and this in turn assists in raising both diastolic and systolic pressure.

The old adage "If pulse pressure crosses the pulse rate that is the time to decompress" has been supplanted by the more modern method which may be substituted in this statement, "*When the pulse pressure crosses the pulse rate, that is the time to dehydrate.*"

By dehydration is meant methods directed toward the relief of intracranial pressure and disturbed tissue fluids by attempting to readjust the proper ratios of the vascular and interstitial compartments. Cerebral edema, middle-meningeal hemorrhage and rapidly oncoming intracranial pressure are usually responsible for vasomotor failure. Lesions in the subthalamie area frequently produce incurable vasomotor paralysis. These observations surrounding diastolic pressure and the peripheral vasomotor bed apply chiefly to the period following shock, for during the period of shock itself the vasodilatation and low diastolic pressure noted, resemble more closely the toxic peripheral responses similar to those seen in histamine reactions (Dale and Richards³) than the central types of vasomotor failure.

After the period of shock has disappeared the

diastolic pressure and pulse pressure become the determining factors in the case.

LUMBAR PUNCTURE

This should be performed as soon after the period of shock as possible with a twenty gauge "round-point" Green needle. Intracranial pressure is best determined by the use of a mercury manometer, (water manometers are frequently inaccurate, clumsy and breakable).

If the spinal fluid is found to be bloody, complete drainage of all fluid obtainable is necessary, (30 to 77 c.c., if possible). Weed³⁰ and Bagley¹ and ² have clearly shown that the red blood cells produce intense reaction in the subarachnoid spaces and they tend to stop up the normal pathways and filters for elimination of cerebrospinal fluid. Thus they temporarily produce obstruction of the cerebrospinal fluid circulation, chiefly the cortical subarachnoid spaces and Pacchionian bodies. The physician is faced with a ten-day period before the red blood cells in the cerebrospinal fluid are entirely hemolysed. This means for at least the first seven days following trauma, cerebrospinal fluid elaborated will not find proper means of escape and intracranial pressure will probably ensue if fluid intake is not carefully controlled. Every effort should therefore be made to remove the red blood cell by drainage. Sufficient fluid (30 ounces adult) should be given by mouth in the twenty-four hour period to permit reaccumulation of cerebrospinal fluid for subsequent drainages.

Lumbar drainage must be resorted to as often as a rise in pulse pressure and respiratory changes may indicate (fourth or sixth hour if necessary).

The condition may be considered similar to a ten-day loss of bladder function during which catheterization is required to prevent distention of the bladder and disturbance in function of the kidneys. Reestablishment of the cerebrospinal fluid circulating function is usually present by the eighth to tenth day and following this, the need for lumbar punctures and drainage is unnecessary. It is evident at once that cerebrospinal fluid is produced from the plasma of the blood (Fremont-Smith¹⁹) and that the fluid volume in the blood is determined by the fixed base (Gamble) and the amount of fluid given to the patient by mouth, vein, hyperdermoclysis or enteroclysis. For this reason a strict limitation of fluid intake to include only the needs of blood volume and cerebrospinal fluid replacement is required during the first ten days after a cerebral injury if bloody spinal fluid is disclosed.

Sedimentation of 10 c.c. of the specimen of fluid taken at each lumbar drainage will give a daily

record of the rapidity of hemolysis. Red cell count of the spinal fluid may also be resorted to.

If clear fluid is obtained at the lumbar puncture and the pressure reading at the time carefully taken, the problem becomes one of management of cerebrospinal pressure with or without drainage. Prompt reduction of intracranial pressure may be accomplished by spinal drainage when symptoms require it. It should be resorted to if necessary. Control of fluid intake with judicious use of glucose and magnesium sulphate have been found entirely adequate in such cases. It is at once evident that this means of "decompression" is far more effective and desirable than the operative methods used heretofore and gives better results without leaving a permanent cranial defect. "Decompressions" have been entirely abandoned by Frazier¹⁸ and many others and in the few instances where surgery is necessary, "explorations" (for clot or foreign body) have taken their place.

As the volume of cerebrospinal fluid is largely dependent upon the amount of fluid dialyzed from the blood stream, which in turn is dependent upon stored fluid in other areas or quantities of fluid given the patient by mouth, this latter source of fluid must be strictly limited so as to prevent overproduction. Repeated spinal punctures may be resorted to if fluids have been given in excess. It is useless to remove spinal fluid for the purpose of reduction of intracranial pressure only to refill the cerebrospinal fluid spaces by permitting free intake of fluids on the part of the patient. A prompt return of stupor and serious symptoms even on the seventh day were noted in Case I following the free unrestricted ingestion of liquids.

We therefore consider spinal puncture of extreme importance, not only as a diagnostic method to determine the presence of clear or bloody spinal fluid, but also to determine intracranial pressure and establish the method of subsequent treatment for the patient.

DEHYDRATION

Magnesium Sulphate

The use of magnesium sulphate in proper doses by mouth or rectum effects a rapid withdrawal of fluid from the body. It is evident that magnesium sulphate will be powerless to produce the desired result should the patient be permitted to have free fluids by mouth, vein or otherwise, as the fluid thus given will rapidly replace that claimed by magnesium sulphate. The physician frequently desires to deplete blood volume by the use of this hypertonic solution realizing that the circulatory system will turn to tissue fluids to replenish its supply. This will not only temporarily prevent the further elaboration of cerebrospinal fluid, but actually

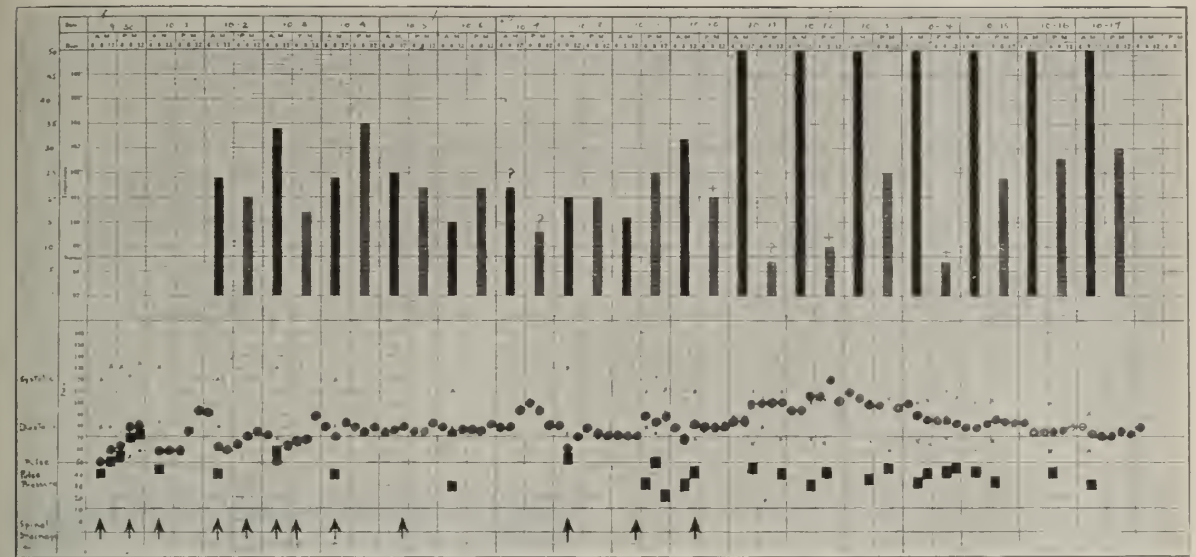


Figure IV. Charts showing progress in a severe and almost "hopeless" case (1) of extensive fracture of the occipital region, respiratory "failure" and intensely bloody spinal fluid (1,300,000 red cells). Note rising pulse pressure and pulse almost crossing for several hours. Glucose and lumbar drainage restored proper relations between pulse pressure and pulse. No fluids for 48 hours. Fluid given on third day produced prompt return of pressure with cross of pulse pressure and pulse rate. Active dehydration and drainage restored proper relations and patient out of danger. On seventh day patient obtained large quantity of water surreptitiously and stupor returned in four hours, condition became serious, pulse pressure and pulse again crossed, heroic measures, drainage and dehydration again relieved the crisis and patient recovered. Note after the tenth day fluids may be given up to 50 ounces without effect whereas during the first seven days fluids above 20 ounces were not safely tolerated.

withdraw from this reservoir and materially reduce intracranial pressure (Weed, Weed and McKibben^{32, 35, 36}). In order to effect this process there should be no added available fluid, so that the circulatory system must turn to the interstitial compartment for its replenishment of volume. This method of dehydration has been found ideal for those cases in which no bloody spinal fluid has been present and where restriction of fluid intake to not more than twenty ounces per day has been established.

It is most important that during the period of shock when vascular fluid volume is low, because of fluid lost into the tissue and through the skin, that magnesium sulphate should *never* be given, until all signs of shock have passed, for to further deplete the blood and vascular system by this hypertonic agent, when circulation is already greatly in need of fluid volume, is to increase the degree of shock and profoundly disturb the patient. It is our distinct feeling that magnesium sulphate is contra-indicated during the period of shock, but may be used to great advantage when fluids are properly restricted during the first to tenth day after a cerebral injury.

Hypertonic Glucose

Fifty per cent glucose solution when given intravenously in proper doses (30-60 c.c.) produces a temporary hypertonic state of the blood stream and draws fluid rapidly from the interstitial compartment, especially from the cerebrospinal fluid reser-

voir (Howe²³). In this way it not only directly dehydrates the tissues but prevents cerebrospinal fluid production and this method directly influences intracranial pressure.

The action of glucose solution usually persists for one to four hours, during which time fluids have been drawn into the vessels. As glucose is rapidly burned by the tissues and eliminated by the kidneys, its value lies not only in its dehydrating effect, but also in its proper disposal. Hypertonic sodium chloride has seemed to us undesirable because the sodium increases the fixed base and fluid volume both in the blood and interstitial compartment. When the excess has been eliminated by the kidneys from the blood volume, there remains an increase in the tissues which favors edema and cannot be removed. As glucose is burned this residual effect is not present.

Glucose assists greatly with the problem of shock by increasing blood volume and holding fluid given into the vessels from untimely escape, as well as delaying cerebral edema and intracranial pressure and furnishing sugar for metabolic requirements. It also produces large quantities of CO₂ in the "burning of the sugar" and thus favors an additional supply of CO₂ when hyperventilation is present. This tends to offset alkalosis, and in turn prevents edema. The secondary effects on oxygenation, permeability, blood pressure and pulse are all beneficial. It is evident that the glucose acts directly on the tissue spaces in its dehydrating value, whereas magnesium sulphate withdraws

fluids from the vascular system, which secondarily must turn to the tissues for replacement. A judicious and combined use of these two agents will be found of extreme value; for instance, the giving of fifty per cent glucose solution will draw fluid from the tissues into the vessels. This fluid may be found only temporarily in the vascular circulation and later redeposited in the tissues, with a return of the patient to his former state.

It is often highly desirable to remove this fluid altogether from the body and after an appropriate time (one hour), when glucose has had its maximum opportunity to effectually withdraw the fluid into the vascular system, magnesium sulphate may be given by mouth or rectum to withdraw this fluid entirely from the body. It is thus possible to actually progressively dehydrate a patient permitting a fluid intake barely sufficient to meet the actual demands of the patient, and not sufficient to permit fluid storage or its replacement in the tissues already dehydrated. The dose, frequency and combinations are not the same for each patient. The hydrated alcoholic or extremely obese individual will require more active dehydration than the child or very thin patient.

It will be found that if the patient's blood volume is materially reduced by magnesium sulphate the pulse may rise to 120 or over. This is the "cry of the circulation for fluid" and instead of replacing the fluid removed, by mouth, or vein, one may again use fifty per cent glucose intravenously to assist the blood in reclaiming the lost volume from the stored fluid reservoirs of the body. The pulse usually falls as vascular volume increases. It has been my practice to maintain the pulse between 110 and 120 (adult). In this way one may be able to carefully control and balance the available fluids of the body to the safest and most desirable extent.

One or both of these solutions may be repeated every fourth hour when necessary. Their use should not be empirical, but directed along a definite line indicated in the treatment of the various conditions encountered, which are associated with head injuries.

Fluid Limitation

With one exception noted below, the patients have been placed on a strict fluid limitation of twenty ounces total intake per day. This includes coffee, tea, milk, soup, fruit juices or liquids in any form, and has been found to be approximately sufficient to meet the necessary requirements. In young individuals the level is sometimes reduced to fourteen or sixteen ounces. Additional fluids are given in the form of normal saline solution by vein only if required.

An exact intake and output record is maintained upon the patient until the second week. Thus it is possible to know at all times the actual fluid status of the patient and the factors in question. From the output record one may determine the amount of fluid storage that occurs, unless unusual sweating is present. The ordinary solid diet we have found¹² contains sufficient fluid to maintain the needs of the breath, skin and bowels. When the patient's temperature is elevated some slight allowance must be made for additional fluid loss.

The exception to this fluid restriction is the demonstrated presence of blood in the cerebrospinal fluid. It is necessary to allow enough additional fluid so as to permit daily spinal fluid drain-



Figure V. Lumbar puncture always with pressure reading by a manometer. This should always be done in the horizontal position.—8 mm. hg. is considered normal spinal fluid pressure. Where pressures are above 20 mm. hg. in trauma cases, fluid should be drained slowly. Spinal fluid should never be withdrawn in cases where pressure is above 20 mm. hg. if tumor of the brain or internal hydrocephalus is suspected, or in cases where the physician does not know the actual reason for the increased pressure as danger of cerebellar hernia with respiratory death is very real. High pressures due to trauma or pyogenic meningitis offer little danger because the mechanism is usually one of external and not internal hydrocephalus which does not promote cerebellar hernia.

age and replacement and favor washing out of the red blood cells. Thirty to thirty-two ounces per twenty-four hours have been found ample for this purpose. If fluid intake is allowed above twenty ounces per twenty-four hours the physician should be ready at any time to do a spinal puncture, should intracranial pressure ensue. It has been found in this dehydration series that the patient rapidly returns to consciousness and hospitalization is reduced by many days.

Stupor or unconsciousness has not been a matter of days, but of hours, when proper fluid balances are maintained. The prompt return to a stuporous state will follow the additional administration of fluids as indicated in Case I and many others in this series.

POST-TRAUMATIC MANAGEMENT

The patient should be maintained after his discharge on a fluid level of not more than thirty-two to forty ounces per twenty-four hours, so as to pre-

vent post-traumatic sequelæ, such as dullness, headache, vertigo, tinnitus, and the usual symptoms which have been found to be secondary to chronic intracranial pressure (see Fay¹⁶).

It is our considered opinion that the cerebral atrophy noted in an extensive series of encephalograms on post-traumatic cases (Pancoast and Fay^{27, 28}) is directly due to the prolonged period of intracranial pressure and stupor following a head injury. An extensive cerebral atrophy may be produced within a few days if this condition be permitted.

We believe that the reduction of mortality noted in this series is directly due to the *exact limitation of fluid intake* from the time of admission to the time of discharge of the patient and the ease with which intracranial pressure and cerebral edema may be controlled when known amounts of fluid are given to the patient during his period of temporary cerebrospinal fluid decompensation.

A study of the illustrations and charts will reveal the methods in use at the present time and this visual record indicates the condition of the patient during his entire period of observation.

The utilization of the above factors makes it possible to treat intracranial injuries and head trauma in a rational manner with due regard to the physiology, and the ultimate economic readjustment of the patient. The results obtained in this series clearly indicate that each patient has presented an individual problem for solution and every means at our disposal has been utilized to correct the profound physiological disturbances caused by the injury.

With due consideration of these factors, we may maintain a total mortality of twenty per cent, inclusive of all types of head injuries, where unconsciousness has been present for ten minutes or more. Those cases which survive the third hour after admission have shown a mortality of ten per cent. Where the twelfth hour period has elapsed and sufficient opportunity for controlling the fundamental problem has been allowed, a mortality of eight per cent has been obtained. This would appear to be the actual mortality in the group of head injuries where cerebral damage has not reached the point of hopeless correction. It will be noted in the cases that died after the twelfth hour, that inoperable complications were present.

CONCLUSIONS.

A small series of consecutive cases treated along the lines of strict fluid control and combined methods of dehydration have given a most promising outlook for the management of intracranial pressure and trauma.

When every case of head injury admitted to the

doors of the hospital, whether the survival period was five minutes or fifteen days is included in the mortality statistics and cases of laceration and concussion not associated with the period of unconsciousness of at least ten minutes has been excluded, mortality in this group has been 20.8 per cent. The mortality after the third hour of admission has been 10.4 per cent, whereas after the twelfth hour it was 8 per cent.

It is our distinct impression that several apparently hopeless cases have been saved by the prompt measures and proper application of the principles involved in water metabolism, dehydration and strict control of fluid intake.

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ADDRESS OF THE CHAIRMAN, SECTION ON OPHTHALMOLOGY, OTOTOLOGY AND RHINOLARYNGOLOGY

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As Chairman of the Eye, Ear, Nose and Throat Section, I wish to thank our President, Doctor John Peck, for the honor which he has conferred upon me by this appointment, the privilege of accepting which is an opportunity that comes to a limited number of fortunate members of the state society.

I also wish to thank Doctor George F. Suker, our guest speaker, and to thank those who have so willingly contributed their time toward making the program a success.

It just happens that I have been in practice for twenty-five years, and I thought it might be of interest to make a few remarks as to the change in the general trend of our specialization during the last quarter of a century.

Twenty-five years ago a physician was a specialist usually because he so termed himself. He was graduated from a school of medicine and decided he would specialize in a certain line. Without any special training he took up the work and generally, by experimenting on the public, as it were, he became more or less proficient.

It is entirely different nowadays. The specialist, after leaving the teaching institution and the clinics, is well trained and able to take competent charge of almost any case which comes to his attention. He does not have to call in counsel

and is able to handle surgical cases very efficiently.

There is also a great change in the general public's attitude toward the medical profession. A person who is sick now demands to know what is the matter with him, and he has to be told in an intelligible manner, because as a rule he can understand perfectly what is being told him. Formerly a patient having a complaint called in a doctor; the doctor gave him some medicine and told him what to do, but it did not occur to the patient to ask what the trouble was, and if he did, the chances were the doctor would not tell him. During the last few years at frequent intervals there have appeared in the leading newspapers and periodicals articles on medical subjects by men of great competency and fine reputation. The enlightenment that has come to the general public through contact with these articles has made it impossible to gloss over or avoid telling them the absolute truth when they come to either the general practitioner or the specialist for consultation or treatment. Therefore, if we do not tell our patients what is the matter nowadays they will go to someone who will.

When I started in to practice a great many of the operations were done either in the patient's home or in the doctor's office, and I had considerable trouble for a number of years in getting patients to realize how much better it would be to have hospitalization during an operation or during some serious sickness. Now, patients expect and demand to be taken to the hospital. A special nurse was rather a rarity twenty-five years ago, most cases going on general routine nursing. Nowadays it is quite an ordinary thing for even a tonsil patient to have a special nurse, and even cases of rather minor importance will demand a day and a night nurse.

This, of course, works out for the betterment of the patient and lessens the time of the sickness to a great extent.

The American College of Surgeons has standardized many hospitals and is attempting to standardize all hospitals. This has caused a great advancement in all lines of medicine. Careful records are kept of all cases. The records are examined by a competent committee and must be complete in every detail before being accepted, thus creating a very complete record library in every hospital. There has been great emphasis placed on careful records in some hospitals, while in others perhaps not enough.

The American College of Surgeons has also attempted to overcome the fee splitting evil, if it may be called that, and perhaps has accomplished something in education along this line. Any doctor operating in a standardized hospital must

sign a declaration that he will not secretly divide fees. This is the only thing to which the College demands that a doctor put his signature. Neither the College nor the hospitals, to my best knowledge, have done anything in the way of attempting to enforce compliance with this obligation. The doctors all sign their names, stating they will not divide fees, and those who want to, divide them as they wish, and no one seems to bother much about it.

It seems to me that it is rather absurd to have in the hospital requirements an article to which absolutely no attention is given. It is a rule that cannot be enforced, and it works hardship on a

few individuals who in their practice live up to their pledges. It seems to me that this rule should be taken out of the hospital requirements. It is just like the prohibition law, probably all right, but many people pay no attention to it because they do not believe in it. Personally, I do not believe in a division of fees and do not practice that procedure. However, it seems to me that it should either be taken out of the hospital requirements or something done in the way of enforcing it.

After reviewing the advancement in our specialties in the last quarter of a century, I wonder what the next twenty-five years will bring forth.

A Public Health Survey of Iowa

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SECTION II*

INTERNAL ORGANIZATION OF THE DEPARTMENT

I shall consider the Department as it now functions, then take up the divisions it should have, and finally present in budget form the minimum of a well balanced Department organized into divisions.

With the exception of a public health engineering division which is separated from the rest of the Department, being housed in the fourth floor of the State Capitol, and the state laboratories at Iowa City, all the miscellaneous activities of the State Board of Health are inextricably crowded together in an old frame dwelling house on the margin of the Capitol grounds. That results of any value were secured was a tribute to the ability, amounting almost to genius, of the late Commissioner, Dr. Henry Albert. Not only is expansion impossible in these quarters but valuable records are in danger in what is a veritable fire trap. Therefore it is essential that proper quarters be provided at the earliest possible moment.

Plans have been made for a new state office building in which adequate quarters for the Department of Health are provided. This building is only in the blue print stage and may not be available for four or five years. In the meantime, the need for adequate quarters is so urgent that the Board of Control should rent and furnish to the Department quarters in some office building pending construction of the new state office building.

Within the past year a beginning was made in developing a Division of Communicable Diseases by the employment of an epidemiologist. The mixture of heterogeneous activities connected with licensing the so-called professions adds to the confusion in the cramped space of what is really a general office. Of these licensing activities I think the Iowa Health Department is burdened with the most diversified list. The list includes—

1. Medicine and Surgery.
2. Dentistry and Dental Hygiene.
3. Nursing.
4. Podiatry.
5. Osteopathy.
6. Osteopathy and Surgery.
7. Chiropractic.
8. Optometry.
9. Cosmetology.
10. Embalming.

The fees for these various licenses more than pay the cost to the state, but fees go into the general treasury and are not reimbursed to the Department of Health. Consequently a registrar at \$2,400.00, a stenographer at \$1,200.00 and two part-time clerks are paid out of Health Department appropriations when their time is given to licensing work. This work is only indirectly connected with health and some time in the future will be transferred to a special division created for the purpose. At present it is a confusing factor and takes up considerable time of the Commissioner.

Another activity added to the Department by act of legislature is really supervision of Nursing

[Editor's Note: Section I of this report, Organization of Outside Agencies, appeared in the preceding issue of the JOURNAL.]

Education. It is in no sense a public health activity, but allots \$3,000.00 salary to a nurse who visits and recommends classification of nurses training schools and other work in raising standards of nursing education.

The following is the budget appropriated for the Department for this fiscal year. I have segregated it rather roughly into three divisions—Administration, Communicable Diseases, and Public Health Engineering.

DIVISION OF ADMINISTRATION

Director, Commissioner of Health.....	\$ 5,000.00
Chief Clerk.....	2,000.00
Secretary to Commissioner.....	1,500.00
Registrar of Licensure.....	2,400.00
1 Bookkeeper.....	1,200.00
2 Stenographers.....	2,400.00
2 Clerks, part time.....	800.00
1 Nursing Education Supervisor.....	3,000.00
1 Lecturer.....	3,600.00
1 Assistant Registrar Vital Statistics.....	2,000.00
3 Clerks at \$1,200.00.....	3,600.00
Travel.....	2,500.00
Travel Lecturer.....	1,500.00
Total.....	\$31,500.00

DIVISION OF COMMUNICABLE DISEASES

Director, Deputy Commissioner.....	\$ 4,000.00
1 Epidemiologist.....	3,600.00
1 Morbidity Clerk.....	1,500.00
1 Stenographer.....	1,200.00
1 Antitoxin Clerk.....	1,200.00
1 Janitor Clerk.....	1,200.00
1 Part-time Public Health Nurse, T. B.....	2,000.00
Travel Epidemiologist.....	1,800.00
Tuberculosis, Travel per diem T. B. consultants for clinics and printing.....	2,000.00
Contingent fund.....	4,000.00
Biologics.....	5,000.00
Total.....	\$27,500.00

DIVISION OF PUBLIC HEALTH ENGINEERING

Director.....	\$ 3,600.00
1 Assistant Engineer.....	2,100.00
1 Assistant Engineer.....	2,000.00
1 Junior Engineer.....	1,800.00
1 Chemist.....	2,400.00
1 Stenographer.....	1,200.00
2 Part-time Inspectors.....	900.00
Travel.....	6,000.00
Laboratory Equipment.....	1,000.00
Stream Pollution Equipment.....	625.00
Motor Transport.....	900.00
Total.....	\$22,525.00

SUMMARY

Division of Administration.....	\$31,500.00
Division Communicable Diseases.....	27,500.00
Division Public Health Engineering.....	22,525.00
Grand total.....	\$81,525.00

In considering the total budget appropriated for the Health Department for health work, it is fair to deduct from that total the following:

Registrar for Licenses and Clerical.....	\$4,400.00
Salary Nursing Education Supervisor.....	3,000.00
Total.....	\$7,400.00

Therefore, if we deduct \$7,400.00 from \$81,525.00, it leaves as the real appropriation for public health work in Iowa the meagre sum of \$74,125.00.

In 1925 the per capita appropriation by state legislature for Health Departments was fifteen cents or more in six states, Delaware, Florida, Maryland, North Carolina, Massachusetts, and Rhode Island. It was five cents or more per capita in thirty-eight states. In ten states, the appropriation was less than five cents per capita, and Iowa was at the bottom of the list with only two and four-tenths cents. The average for the forty-eight states was nine cents. In increase in Iowa to five cents per capita should therefore be a very reasonable suggestion. This would give an annual appropriation of \$125,000.

I shall use this modest, reasonable sum as a basis for the minimum total appropriation and suggest a budget of this total divided into the necessary divisions in proportion to their importance and the dividends that may be expected from such expenditures—in life saving, disease prevention, and health promotion.

I deem it wise to request the minimum of five cents per capita instead of the larger sum which Iowa should appropriate, because any reasonable legislature, in the face of the figures, would be inclined to grant this sum at the first request. After reorganization is effected and results are apparent larger appropriations more nearly approaching the average in other states will follow. The present appropriation has been raised slightly from two and four-tenths cents in 1925 to almost three cents in 1930, so that the increase to five cents suggested is a very small sum for a purpose of such paramount importance as health.

DIVISION OF ADMINISTRATION

In the central office of most State Health Departments there is placed the clerical work incident to the administration of the Department. This activity has to do with records and files, personnel and accounts, purchasing, etc. It is usually classed as a Bureau or Division of Administration, although various other titles are used. In some states, certain functions ordinarily discharged by special divisions, are carried on in the Division of Administration. In twenty-two states, including Iowa, all department activities in public health education are placed in this division. In depart-

ments not completely organized, new activities are often carried in this division until they grow sufficiently to warrant creation of a special division.

The amount of money spent and the percentage of the total Department budget therefore varies greatly in the states. In the large, well organized Departments, a smaller percentage of the total appropriation is spent for administration than in the states incompletely organized.

Probably not more than 15 per cent of the total should be spent for administration. Well organized states such as Massachusetts, Ohio, Alabama and Maryland, spend less than 10 per cent for administration, while incompletely organized states such as Wyoming, Vermont, Maine, Arizona and Iowa, spend more than 40 per cent of the total appropriation for administration. This is because the total appropriation is low and, as indicated above, many activities are carried in this division which are charged to special divisions in other states.

On a per capita basis Iowa spends less for health than any state in the Union. With increased total appropriation and better organization by forming the necessary new divisions. Iowa, instead of spending 40 per cent of the total, would allot probably less than 15 per cent for administration.

The Division of Administration will probably for some years be obliged to carry activities which have not developed sufficiently to warrant a special division. Such public health education activities as the Department is able to undertake will have to be handled by the Commissioner in his general office. He can have a committee of the proposed Public Health Council to advise with him and correlate other public health education work with his. This Committee should include:

The Superintendent of Public Instruction.

The Dean of the College of Medicine, University of Iowa.

The Director Extension Division, University of Iowa.

The Director Extension Division, Iowa State College (Ames).

The Executive Secretary, Iowa Tuberculosis Association.

The President State Teachers College, Cedar Falls.

The collective amount of public health education by organizations represented by the above Committee is enormous. If the Commissioner can coordinate and encourage expansion of this educational work on sound lines, he will achieve much more than he can by attempting to secure large sums for Public Health Education.

DIVISION OF VITAL STATISTICS

While the personnel engaged in Vital Statistics is small, it is a clean cut unit and should be made an independent division with more space and one additional clerk.

DIVISION OF COMMUNICABLE DISEASES

Control of communicable diseases is the oldest activity of health departments. The first boards of health were created for the purpose of preventing and suppressing epidemics.

Advances in knowledge of Epidemiology and Preventive Medicine have made possible standardization of procedure and method so that control of these diseases in the more advanced states has become a matter of routine. Maternity and child hygiene and other newer and less developed activities have assumed greater importance and urgency with most administrators, although the control of communicable diseases is far from satisfactory and still a major problem in all departments.

Twenty-five states have well organized Divisions with one or more full time epidemiologists employed. In twelve states there is no special activity other than such part of his time as the state health officer can give. Iowa was in the latter class until this year, when a full-time epidemiologist was employed.

A department properly organized, with a proper sense of proportion and a reasonable amount of total appropriation, would probably allot not more than 10 per cent of this total to communicable disease control. Before the development of child and maternity hygiene and county full time health departments, there was a tendency to overemphasize communicable disease. A keener sense of values now prevails and larger sums are now allotted to maternity and child hygiene, county health organization, and other activities which promise greater dividends in health promotion and disease prevention.

In a small growing Department, venereal diseases and tuberculosis are best handled in the Communicable Disease Division. Even in the larger, more highly developed states, the trend is toward reducing these activities from division rank to sections in the Communicable Disease Division. In Iowa these activities, tuberculosis and venereal diseases, can be handled effectively by one full-time man, either the Director of the Division of Communicable Diseases or an epidemiologist subordinate to him.

DIVISION OF LABORATORIES

The laboratory situation is somewhat complicated because the laboratories are housed in the College of Medicine at Iowa City and appropri-

tions for their maintenance are made direct to the University.

They consist of three units, each well equipped and with adequate trained personnel. To duplicate these three units, bacteriological, serological and water sewage laboratories would be folly at this time. The personnel alone would cost over \$25,000.00 per year, supplies and equipment \$6,000.00 more, so that over \$30,000.00 would be necessary for running expenses, without considering the cost of rented quarters and installation of similar equipment which now exists at the University.

A schedule of salaries and current expenses to do the work of the Department now done by the University would be as follows:

Director	\$ 5,000.00	
1 Chief Bacteriologist	2,700.00	
1 Assistant Bacteriologist.....	1,800.00	
1 Assistant Serologist.....	1,320.00	
1 Media Technician.....	1,620.00	
1 Technician Bacteriologist.....	1,200.00	
2 Technicians at \$960.00.....	1,920.00	
2 Water Analysts.....	3,280.00	
3 Attendants	2,880.00	
3 Stenographers and Clerks....	3,000.00	
<hr/>		
Total salaries.....	\$24,720.00	
Supplies and equipment....	6,000.00	
<hr/>		
Grand total.....	\$30,720.00	

To carry this work the University receives an appropriation of \$14,550.00 for bacteriological laboratory and \$17,250.00 for Hygiene and Preventive Medicine. It uses all of the bacteriological laboratory appropriation and a considerable part of the Hygiene and Preventive Medicine appropriation to perform this work. A fee of 50 cents for each Wassermann examination enables them to avoid a deficit. Fees are also charged for water examinations but these go direct into the state treasury. This arrangement should be continued until proper quarters to house the entire Department of Health are available in the proposed new state office building. It should be understood that this is a temporary arrangement, that these laboratories are an integral part of the Department of Health and that they should be transferred to the Department of Health when that Department is ready for them.

This arrangement should be continued temporarily for reasons of economy and expediency. There are certain disadvantages which can be practically obviated. The professor of Preventive Medicine and Hygiene of the College of Medicine should be appointed with the consent of the University as director of the Laboratory Division

of the State Department of Health. He would then be an official of the Department and could insure prompt service and reports to the Department. A part of his salary, at least one-half, should be paid by the Department of Health as soon as funds are available.

The system of collecting fees is bad in principle and does not work well in practice. As soon as additional funds are available, all fees should be abolished and only free service rendered.

DIVISION OF PUBLIC HEALTH ENGINEERING

This division is now well organized and is doing creditable work as a smooth-running unit. Its budget now is \$22,500.00. The Director and his first assistant are underpaid. A large amount of work is done under the state stream pollution laws. It would be wise policy to separate to some extent the stream pollution work, which directly affects public health, from that which is done to protect fish life, or for esthetic reasons, the energies of the division must first be concentrated upon its primary objective, prevention of disease. It is good policy and saves money for the state to have the engineers do work for other departments of the state government. It avoids the cost of setting up duplicating machinery, but this work must be secondary to the primary disease prevention function and should be financed from other funds than those appropriated for public health.

It would seem advisable to have a Stream Pollution Board created by act of legislature, consisting of the Commissioner of Health, the Conservation and Fish and Game, and other officials directly interested in phases of stream pollution other than health. This Board could apply the law in such cases, leaving executive action in cases affecting health in the hands of the Commissioner of Health. Such a Board could also secure the financing, from funds other than those of the Health Department, of projects which did not affect the public health.

In so far as possible, milk control work should be initiated and when funds are available, a system of inspection of pasteurizing plants put in effect. Milk production activities are now exercised by the Dairy and Food Division, Department of Agriculture. The supervision of milk production on the farm belongs to the Department of Agriculture, but in marketing milk to the consumer the disease menace is the concern of the health authorities. Milk epidemics have occurred and in some instances in milk alleged to have been pasteurized.

In the correction of faulty design of plants or careless operation, the Engineering Division has a useful function.

DIVISION OF CHILD HYGIENE

The greatest possibilities for prevention of disease, promotion and conservation of health lie in the Division of Child Hygiene. It should be the most important division in any Health Department. Forty-two states have Child Hygiene Divisions in their Health Departments. Iowa, with five other states, has no Child Hygiene Division in the Health Department. Because of this lack, federal funds under the Shepard-Towner Act were matched with funds of the University of Iowa. The work done by the University Medical School was largely educational and covered maternity and infancy only. Federal aid has been discontinued and a new start must be made by creating a Division of Child Hygiene in the Department of Health.

In order to avoid too many divisions, public health nursing, as in many other states, should be a section in the Child Hygiene Division. There are over 200 public health nurses in Iowa. Their supervision by a central authority is an essential thing to obtain the best uniform practice. The Department of Health has been unable to furnish this leadership and supervision. The Iowa Tuberculosis Association has been doing this work for the Department and has even loaned a very competent nurse part time to the Department to exercise this supervision.

This supervision is an official function and can only be exercised temporarily by any unofficial body. A competent nurse should be placed on full time duty in the Child Hygiene Division of the Health Department to act as an assistant director of Child Hygiene and state supervisor of Public Health Nurses.

DIVISION OF COUNTY HEALTH WORK

With the responsibility for the health of the state as a whole it becomes a matter of vital importance to the State Health Department what type of organization exists and what shall be the local unit of organization. In the New England states the local unit is the town or township. This unit of government was a necessity in the days of bad roads and difficult communications. Where every township has a board of health, it means that these boards are merely nominal and only function where state personnel is in almost daily contact with them. In small states with good roads, a system of state district health officers with liberal use of other state personnel makes the best of a bad situation for public health resultant from using the township as a unit.

The county is the logical unit of government in all states of any size, and the trend toward organization of County Health Boards with full-time

health officers, is very decided. The County Health Board is almost as bad as the township board if the county health officer is not a full-time official.

Experience has proved that the best type of organization in a state such as Iowa is to organize and develop County Health Departments with a full-time county health officer in charge. In 1915 there were only a dozen County Health Departments organized on such a basis, while today there are *about* 400 full-time county health officers operating.

It is much better to develop full-time county units even if the response is slow, than to build up a large state machine which would destroy local initiative for the sake of gaining a temporary advantage. Except the New England states, Illinois, Wisconsin, and one or two others, the county is the only unit, functioning on a state-wide basis, that has the power to levy and collect taxes and to make expenditures for public health.

The permissive county health law passed by the last Iowa legislature now makes possible the organization of Iowa County Health Departments with a full-time county health officer in charge. This makes it necessary for the State Department of Health to have a Division of County Health Work. No additional funds for health work can be secured before 1931, but an officer of the U. S. Public Health Service has been detailed for one year to assist the state in organizing full-time county health units. The greatest progress in Iowa's health history will be made in the next five years because of the possibilities of county health organization, provided the legislature votes a modest sum for county health work.

PROPOSED BUDGET FOR THE NEXT LEGISLATURE
ADMINISTRATIVE DIVISION

Commissioner	\$ 5,000.00
Chief Clerk.....	2,400.00
Secretary	1,500.00
Stenographer	1,200.00
Bookkeeper	1,200.00
Janitor Clerk.....	1,200.00
Travel Expense—General.....	3,000.00
Registrar of Examinations.....	2,400.00
Stenographer	1,200.00
2 Clerks, Part-time.....	800.00
Total	\$21,100.00

VITAL STATISTICS DIVISION

Assistant Registrar.....	\$ 2,400.00
Stenographer	1,200.00
4 Clerks at \$1,200.00.....	4,800.00
Total	\$ 8,400.00

LABORATORY DIVISION

Director, part salary.....	3,500.00
Total	\$ 3,500.00
All other salaries paid by the University.	

COMMUNICABLE DISEASE DIVISION

Director	\$ 4,500.00
Epidemiologist	4,000.00
Morbidity Clerk.....	1,500.00
1 Stenographer	1,200.00
1 Biologics Clerk.....	1,200.00
1 Janitor Clerk.....	1,200.00
Travel Epidemiologist	1,800.00
Tuberculosis	4,000.00
Contingent Fund.....	4,000.00
Biologics	6,000.00
Total	29,400.00

PUBLIC HEALTH ENGINEERING DIVISION

Chief Engineer.....	\$ 4,500.00
1 Assistant Engineer.....	3,000.00
1 Assistant Engineer	2,000.00
1 Junior Engineer.....	1,800.00
1 Chemist	2,400.00
1 Stenographer	1,200.00
2 Part-time Inspectors.....	900.00
Travel	6,000.00
Laboratory equipment	500.00
Motor transport	600.00
Total	\$22,900.00

CHILD HYGIENE DIVISION

Director	\$ 4,500.00
Assistant Director, Supervisor of Nurses....	3,600.00
2 Public Health Nurses.....	4,800.00
1 Stenographer	1,500.00
Travel	6,000.00
Total	\$19,800.00

COUNTY HEALTH WORK DIVISION

Director	\$ 4,500.00
Assistant Director	3,600.00
2 Public Health Nurses.....	4,800.00
1 Stenographer	1,500.00
1 Clerk	1,200.00
Travel	6,000.00
Total	\$21,600.00

SUMMARY

Division of Administration.....	\$ 21,100.00
Division of Vital Statistics.....	8,400.00
Division of Laboratories.....	3,500.00
Division of Communicable Diseases.....	29,400.00
Division of Public Health Engineering.....	22,900.00
Division of Child Hygiene.....	19,800.00
Division County Health Work.....	21,600.00
Total Budget.....	\$126,700.00

SUMMARY AND CONCLUSIONS

Briefly the chief recommendations are four, two in Section I and two in Section II. There are many minor changes suggested, and I have purposely omitted matters of detail, which will be cared for automatically by establishing the four fundamental recommendations.

Section I:

1. Formal declaration of policy by the State Medical Society accepting the following problem as their collective obligation and pledging themselves to bring about the desired activity of county medical societies as rapidly and as thoroughly as possible.

Problem: How can adequate medical, surgical and preventive advice and treatment be made available, within easy reach of all citizens, at a cost within their ability to pay?

2. The appointment of a Special Public Health Advisory Council by the governor for the purpose of coordinating all public health activities in the state in one comprehensive Public Health Plan.

Section II:

1. The establishment of a Division of Child Hygiene in the State Department of Health.

2. The establishment of a Division of County Health work in the State Department of Health.

The two chief recommendations following Section I will afford the sound foundation for a comprehensive joint plan, and the two recommendations following Section II will furnish the State Department of Health with the necessary machinery for carrying out such a plan in detail.

It has been my guiding principle not to disturb activities already developed by transfer to other departments, but to accept these developments as assets leaving them *in situ* and devising means for their utilization, by the creation of a Special Public Health Advisory Council. This is consistent with the statement, made earlier, that it matters little by whom the work is done, the important thing is to have it well done by some agency. One of the common defects of State Health Departments is a lack of contact between the center (State Health Department) and the periphery (local health units). This can be corrected in two ways:

1. By building up a big state machine, with liberal travel allowance to maintain frequent contact.

2. By developing local units in strategic points and ultimately in every county which will maintain constant touch with the central body, the State Department of Health.

For reasons explained above the first method, so far as Iowa is concerned, would be a great mis-

take. It would kill local initiative, the very thing we must encourage and develop if we hope for permanent success.

The second method development of full-time County Health Departments is the only one that should be considered. There are many counties which are ready and anxious to begin such organization. I should not be surprised if seven or eight counties were so organized within one year. With such a beginning, showing examples of method and cost, other counties will follow rapidly, provided the organized medical profession justifies the faith I have in them, by energetically attacking their problem, and actively participating in county health organization.

College of Medicine State University of Iowa

(From the Proceedings of the University Hospital Medical Society.)

A STUDY OF SACRO-ILIAC AND SACRO-LUMBAR SPRAIN

LEO J. MILTNER, M.D.

From the Department of Orthopedic Surgery

In making a systematic study of low back pain, the cases may be divided into two main types¹: first, those with symptomatic low back pain wherein the distress is referred from pathology or underlying diseases elsewhere; and second, those with idiopathic low back pain due to regional disturbances of the skeletal structures or their immediate surroundings.

Referred backache from gastro-intestinal and genito-urinary systems does occur occasionally. There seems to be considerable difference of opinion among the various authorities about the relation between gynecologic pathology and backache. The consensus of opinion, however, might well be summarized by the statement of Dr. Plass, who believes that low back pain is rarely of pelvic origin, although he appreciates the fact that uncomplicated retroversion uncommonly, while pelvic infections, tumors, and fascial relaxations somewhat more frequently, do give rise to definite low back pain, which is relieved by correction of the condition. In this study, cases were frequently found which, after suspension of the uterus and repair of the marked relaxation of the pelvic floor, obtained considerable relief. In this instance, the correction of the abdominal and pelvic ptosis was con-

sidered the most important factor in giving relief. Diseases and tumors of the meninges and cord, infections of the vertebral body, typhoid spine, arthritis, and arthropathies must be considered. In this statistical and clinical study the diagnostic files of the orthopedic department were scanned for all cases of low back pain. In Table I can be seen the gross distribution of the cases, according to the final diagnosis.

TABLE I
ETIOLOGY OF LOW BACK PAIN

<i>Etiology:</i>	<i>No. of Cases</i>
Osteoarthritis	1,050
Atrophic Arthritis	300
Sacro-iliac Sprain	326
Sacrolumbar Sprain	114
Comb. Sacro-iliac and Sacrolumbar Sprain	85
Lumbar Muscle Sprain	100
Lumbar Myositis (Myofascitis)	25
Spondylolisthesis	22
Fractured Transverse Processes	14
Fractured Articular Facets	7
Fractured Lumbar Vertebrae (Undiagnosed)	5
Kümmel's Kyphosis	2
Total Number of Cases.....	2,050

In analyzing this table the causes for low back pain in the order of relative importance are:

1. Arthritis	1,350 Cases
2. Sacro-iliac, sacrolumbar and combined sprains	525 "
3. Muscle strain	100 "
4. Lumbar myositis	25 "
5. Other unusual conditions, as spondylolisthesis, fracture of the transverse processes, fracture of the articular facets, undiagnosed fracture of the vertebral body, Kümmel's Kyphosis	52 "

It is of particular interest to note that in reference to the 1375 cases listed as sacro-iliac, sacrolumbar, or combined sacro-iliac and sacrolumbar sprain, 850 cases had to be rediagnosed as arthritis, because of the development of true arthritic changes in the lumbosacral spine. These cases have careful follow-up records for a period of one to ten years. This study indicates that the differential diagnosis between sprain and arthritis is very difficult in the first few weeks or months of symptoms, and that frequently only by long periods of observation is one able to know the true nature of the pathology.

TABLE II
LOW BACK PAIN
(525 Cases Studied)

<i>Etiology:</i>	<i>No. of Cases</i>	<i>Per cent</i>
Traumatic	240	45.6%
Occupational	73	13.9%
Postural	107	20.3%
Others	105	20.0%

A more detailed article on this study will appear in a later issue of the *Journal of Bone and Joint Surgery*.

In the etiological studies in Table II the cases of sprain are classified as traumatic, postural, and others. Under others are those cases that are due to

1.

Abnormal weight distribution, secondary to such causes as hip disease or deformity of a lower extremity;
2.

Mechanical instability of the foot;^{7&8}
3.

Toxic state with acute weak musculature;
4.

Gynecologic and obstetric backache due to relaxation of the pelvic floor with retroversion, separation of the symphysis, pelvic and climacteric pregnancy, etc.;
5.

Obesity with pendulating abdomen;
6.

Psychoneurosis.

Malposture may cause or predispose to chronic strain. The asthenic type usually responds to gymnastic exercises. As a rule these individuals stand in the position of greatest muscular relaxation; the feet are pronated, the knees and hips hyperextended. The lumbar lordosis has been increased; the shoulders are drooped; and the patient presents the typical associated visceroptosis.

Many of the occupations demand extra use of the lumbosacral area, and those cases giving a history of the onset of backache some short time after excessive stooping, bending, lifting, or twisting, are classed in the occupational type, or might be termed chronic traumatic in contradistinction to the acute traumatic variety with immediate symptoms. Steindler lists four cardinal

sion of the hamstring holding the pelvis fixed. A lumbosacral case will show no difference in the spinal movement when sitting or standing, because he holds the lumbosacral region rigid. The forward flexion takes place chiefly in the hip joints. Special tests are of considerable value in the differential diagnosis of low back pain. Straight leg raising causes pain where there is sciatic radiation, in either sacro-iliac or sacrolumbar sprain. Forcible compression of the iliac crests often elicits pain in the sprained sacro-iliac joint, but usually has no effect on the sacrolumbar joint.

Laguere's sign, which consists of forcing a leg in flexion, abduction and outward rotation, causes pain in the sacro-iliac joint; however, as a rule, this maneuver does not cause pain in the painful sacrolumbar area. Goldthwaite's and Gaenslen's signs similarly produce pain in the affected sacro-iliac articulation with slight effect on the sacrolumbar area. In the former, the thigh is strongly flexed with the knee extended. The tension of the hamstrings usually produces a rotary force upon the painful sacro-iliac joint. In the latter, the thigh and knee on the affected side are flexed, so that the extremities are pressed against the chest; then, upon hyperextension of the opposite hip, pain is felt in the affected sacro-iliac joint. It is always to be remembered, however, that in any case of acute sprain it is very difficult to fix

TABLE III
LOW BACK PAIN

	Sacro-iliac Sprain		Sacrolumbar Sprain		Combined Sprains	
	No. Cases	Per cent	No. Cases	Per cent	No. Cases	Per cent
No Radiation	75	22.6%	82	61.9%	36	42.3%
Sciatic Radiation	209	64.1%	25	21.9%	36	42.4%
Lumbar Radiation	23	7.0%	4	3.4%	6	7.0%
Gluteal Radiation	20	6.1%	3	2.6%	7	8.2%
Total No. of Cases	326		114		85	

features on which the diagnosis can be based—in either sacro-iliac or sacrolumbar cases. First, there is a definite anatomical point of tenderness, which is circumscribed; second, there is a typical position in aggravation of the pain; third, there is a position of relief from painful symptoms; fourth, acute sprain responds to the immobilization of the joint in the position of relief, or in such positions as are relaxed in the sprained ligaments. Localized tenderness upon pressure is found in the anatomical locality of the posterior sacro-iliac ligament, in sacro-iliac sprain, and over the posterior lumbosacral angle in lumbosacral sprain.

The sacro-iliac case,¹⁰ when seated with the knees bent and hamstrings relaxed, can bend forward freely, but when standing shows marked limitation of forward flexion, owing to the ten-

sion of the hamstring holding the pelvis fixed. A lumbosacral case will show no difference in the spinal movement when sitting or standing, because he holds the lumbosacral region rigid. The forward flexion takes place chiefly in the hip joints. Special tests are of considerable value in the differential diagnosis of low back pain. Straight leg raising causes pain where there is sciatic radiation, in either sacro-iliac or sacrolumbar sprain. Forcible compression of the iliac crests often elicits pain in the sprained sacro-iliac joint, but usually has no effect on the sacrolumbar joint.

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TABLE IV
STUDY OF ASYMMETRICAL POSITIONS

	Contralateral List	Homolateral List
Sacro-iliac Sprain	24%	8%
Combined Sacro-iliac and Sacrolumbar Sprain	8%	8%

In the chronic cases considerable difficulty is

frequently found in coming to a decision on the diagnosis. In this series, over 50 per cent of the cases showed symptoms persisting over six months. In the postural and occupational group the symptoms frequently continued over a period of years. In Table III it can be seen that certain symptoms, such as the radiation of the pain and the posture assumed, bear a definite relation to the type of sprain. The sacro-iliac cases were more apt to have sciatic radiation (75.1 per cent) as compared with the sacrolumbar cases (21.9 per cent). Radiation into the areas of the lumbar nerves was present in 7 per cent of the sacro-iliac cases, and in 3.4 per cent of the sacrolumbar cases. Pain in the course of the superior gluteal nerve was present in 6.1 per cent of sacro-iliac, and in 2.6 per cent of sacrolumbar cases. Concerning the posture assumed by the patient in Table IV, the unilateral sacro-iliac cases showed a contralateral tilt in 24 per cent of the cases (position of relief), and a homolateral tilt in 8 per cent of the cases.

In explanation of the contralateral list, it is suggested that the patient leans to the opposite side to relieve the strain of the affected joint.

TABLE VI
CONGENITAL ANOMALIES OF LUMBAR AND SACRAL SPINE FROM X-RAY READINGS OF TWO HUNDRED CASES OF SACRO-ILIAC AND SACROLUMBAR SPRAIN.

	No. Cases	Per cent
Sacralization	18	9.0%
Lumbarization	13	6.5%
Spina Bifida:		
Upper Sacrum	52	26.0%
Lower Sacrum	12	6.0%
Other Congenital Anomalies		Number
Coccyx fused on one side with sacral scoliosis....	1	
Bifid lumbar spinous process of lumbar vertebrae	2	
Separation of symphysis pubis	1	
Lumbar ribs	2	
Four lumbar vertebrae	1	
Six lumbar vertebrae	3	
Congenital scoliosis	1	
Other irregularities at lumbosacral junction, as cleft or fifth laminae or congenital irregularity of articulation	26	

and lumbarization were anomalies suggesting undue leverage in either the sacro-iliac or sacrolumbar joints. The anomalous planes of the articular facets of the lumbar spine produce mechanical conditions which limit the motions and concentrate the stresses upon the regions so frequently sprained.

TABLE V
X-RAY STUDIES OF LUMBOSACRAL ANGLE IN SACRO-ILIAC AND SACROLUMBAR SPRAIN (144 Cases)

	Number of x-rays studied	Greatest Angle	Smallest Angle	Average Angle
Male	79	135	95	119
Female	65	140	95	116.4

Homolateral list is usually seen where there is an associated sciatica on the same side as the pain and in these instances it is believed that the sciatic pain is the most disturbing feature.²¹ Radiographic findings are of but little value in the differential diagnosis between sacro-iliac and sacrolumbar sprain, and after reviewing all of the available x-rays in this series of cases, it was felt that whatever was found on x-ray examination could be used only as corroborative evidence in the differential diagnosis.

Impinging transverse processes, sacralization,

Increased horizontality of the sacrum increases the shearing stress between the articulations of the lower lumbar vertebrae as well as at the lumbosacral junction. Measurements of the lumbosacral angle after the method of von Lockum²⁰ showed that the actual relation between the angle and the horizontality of the sacrum was slight. In most instances, where the sacrum lay more or less horizontal, there was seen an accompanying lumbar lordosis, which made the lumbosacral angle approximately that of normal. In studying the antero-posterior roentgenogram of the

TABLE VII
ANATOMICAL VARIATIONS OF THE PLANES OF THE LUMBAR ARTICULATIONS (TROPISM) IN A STUDY OF ROENTGENOGRAMS OF TWO HUNDRED CASES OF SACRO-ILIAC AND SACROLUMBAR SPRAINS

Degree of Tropism:	No. Cases	Per cent
One articulation	40	20
Two articulations	42	21
Three articulations	30	15
Four or more articulations	28	14
60 x-rays showed "so-called normal" planes of articulations		30%

NOTE: The degree of tropism depends upon the number of articulations showing variations in the plane of the contact surfaces.

lumbosacral spine the stereoscopic plates are of greatest value, and only with careful study can one be sure whether or not there is impingement of the transverse processes and whether or not the articulations are normal.

In Table VII can be seen the results of a stereoscopic study of 200 roentgenograms in cases of sacro-iliac and sacrolumbar sprain. The typical anatomic textbook describes the lumbar articulations, for the most part facing the sagittal plane, with gradual transition at the dorsolumbar junction and sacrolumbar junction to the oblique frontal plane. Anatomical variations from this classical picture may be termed tropism.

In this study only 30 per cent of the x-rays showed the so-called normal planes of the articulations in the lumbar and sacral spine; 29 per cent showed marked irregularity in the planes of the lumbar articulation; and 41 per cent showed slight irregularity in the plane of the lumbar articulations.

It is reasonable to believe that those spines showing very marked irregularities in the planes of the articulations, have resultant limitations of motion in certain directions, and have increased motion with corresponding massed forces exerted upon the others of the articulations.

From the statistical and clinical standpoint it is very difficult to determine the exact relation between the various congenital anomalies of the lumbar and sacral spine and the low back pain. The percentage of anomalies shown in this table are approximately the same as those that have been found in x-ray studies made on normal spines.

The author wishes to express appreciation to Dr. A. Steindler through whose generosity this study is made possible. To Dr. Henry Prentiss he is indebted for the anatomical conceptions. Thanks are also due to Dr. Gibbon for his help in procuring roentgenograms; and to Drs. Lowendorf and Lecocq for help in the statistical studies.

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NARCOLEPSY AND CATAPLEXY

C. VAN EPPS

From the Department of Neurology

The following case was presented: Miss G. F., twenty years old, with a neurotic family and personal history, had had headaches for several years which caused loss of time from school until she quit at the ninth grade. Her menses were moderately irregular.

Present Illness: From July, 1929 on, there was an indefinite history of insomnia for three or four weeks. Since that time she frequently drops off to sleep even while at work, so that she has dropped dishes and burned herself ironing. The attacks usually last only a few minutes. Nocturnal sleep is normal. In September, 1929, while at work in the yard, she had her first spell of falling sickness. This and most of the subsequent attacks have been induced by laughing at a joke. She suddenly grows weak all over and slides to the ground. Recovery is prompt and she insists she is not unconscious during an attack. Several attacks like the above occurred during her hospital stay. The physical findings were entirely negative.

Reference was also made to two other cases recently seen:

(1) Mr. H. V. H., a white man of forty-one years who began to have attacks of drowsiness, in half of which he would go sound asleep. These attacks would last three to five minutes and perhaps he would awaken with an hundred-pound weight in his hands. He might keep walking during these attacks. They dated back eighteen years. He also gave a history of weak spells if he laughed. The neurological findings were negative in this case.

The second case was Mr. F. E. S., a white man of thirty-seven years, who has complained for some eight months of being very drowsy and of being obliged to stop work for a few minutes to take a nap, awakening refreshed. He has often gone to sleep at the dinner table. These attacks may come at any time. They have never come on while walking but he has often dropped to sleep while driving a car. The night sleep is normal except for numerous dreams. His knees get weak if he laughs, but he has never fallen. In the sleep spells, he seems to see someone who is not there. He is mildly irritable but his general health is good. The physical examination was negative.

The above cases illustrate conditions which are termed narcolepsy and cataplexy. Narcolepsy may be either idiopathic or symptomatic in origin. Symptomatically, it may result from cerebral tumor; infective conditions of the nervous sys-

tem, especially an epidemic encephalitis; head injuries, endocrine or metabolic disturbances; epilepsy and psychopathological disturbances, such as hysteria. The idiopathic type affects males more than females and the average age is twenty-three and a half years. Durations up to twenty-two years are reported. No treatment is known to afford any relief. On the whole the best explanation of both narcolepsy and cataplexy would appear to be that proposed by Adie. In his view both are inhibitory phenomena, varying in their distribution in the nervous system. In narcolepsy the whole cortex is involved as well as the lower centers. In cataplexy we may suppose that inhibition is confined to voluntary movement and postural tonus. He attributes both disorders of function to a lesion in the "pituitary 'tween-brain system"—that is, the pituitary and the hypothalamic centres—as a result of which inhibitory processes are in some way facilitated.

INACTIVE DUTY TRAINING SCHOOL ROCHESTER, MINNESOTA, NOVEMBER 9-23, 1930

The second annual inactive duty training period for medical reserve officers will be held at Rochester, Minnesota, November 9-23 under the sponsorship of the Mayo Foundation; directed and personally supervised by instructors of the Medical Corps of the United States Army detailed to Rochester for the purpose. The curriculum embraces basic subjects essential to all medical officers.

The school offers opportunity for officers who have not received summer training to earn one hundred hours toward the required number for promotion at the expiration of their respective periods of appointment. The instruction covers a period of fourteen days of seven hours each. All medical reserve officers are eligible. Any physician wishing to join the Reserve Corps should apply at once for a commission and when commissioned will be qualified to register for the course. The course of instruction is arranged so as to allow visiting officers to attend clinics in the mornings and school of instruction during the afternoons and evenings. Last year's course proved very profitable. Several officers of various branches of the regular army visited the school.

Medical reserve officers interested should write Colonel Louis B. Wilson, The Mayo Foundation, Rochester, Minnesota.

NINETEENTH ANNUAL CLINIC, IOWA CITY, NOVEMBER 21 AND 22

After a good deal of deliberation, and consultation with physicians in various parts of the State it has been decided to hold the Annual Clinics of the Medical College in the autumn instead of the spring. Roads are generally in better condition in the fall, sickness apparently is not quite so prevalent, and there is

less conflict at that time of the year with meetings of scientific and professional societies.

This year the Nineteenth Annual Clinic will be held at the University Hospitals on November 21 and 22. Group and general sessions providing practical and interesting clinics or demonstrations of various sorts will be held Friday morning and afternoon. In the evening the College will entertain at dinner, after which the guest speaker of the Clinic will talk on some topic of general interest. On Saturday morning the clinical exercise will be resumed, and in the afternoon comes the Iowa-Nebraska game.

Those expecting to attend the Clinic this year are urged to notify the Dean's office promptly of their intention. Assistance in making hotel reservations or in securing seats for the football game will cheerfully be given.

DR. W. S. PETTY, SELECTED AS MEDICAL DIRECTOR FOR WOODBURY COUNTY HEALTH UNIT

Woodbury county was the second county in Iowa to adopt the Full-Time County Health Unit Plan as provided for under the Permissive County Health Law passed by the 43d General Assembly.

The Woodbury County Board of Health, in its first regular meeting, selected Dr. W. S. Petty as director of the unit. Prior to his coming to Woodbury county, Dr. Petty was the Director of Cooperative Health Work with the Missouri State Department of Health.

Dr. Petty was born in Missouri in 1887. He was graduated from the Keokuk Medical College in Keokuk in 1908, was licensed to practice medicine in Missouri and practiced in that state until 1918.

In the United States army, during the late war, he became interested in public health and upon his return to the United States, took up that phase of work. Since that time he has had several post-graduate courses in public health and has served as County Health Officer in Mississippi and Missouri.

IOWA PHYSICIAN AUTHORS

In last month's Journal announcement was made that Dr. Walter Raleigh Brock of Sheldon, Iowa, had published a small book of poetry and addresses entitled, "Day Dreams."

During the last thirty days the C. V. Mosby Company, of St. Louis, has announced the release of a new manual by Dr. Floyd W. Rice, of Des Moines, entitled, "Outline in Obstetrics for Nurses." This outline represents the accumulation of notes used by Dr. Rice in lecturing to nurses during the past eleven years. It serves both as reference work for the student and also as a lecture guide. The volume is well written and well illustrated. A more complete review of this valuable textbook will be published in the Journal at a later date.

STATE HEALTH COMMISSIONER'S PAGE



O. C. Stulman, M.D.



The most prevalent diseases for the month of August were smallpox, whooping cough, scarlet fever, poliomyelitis and diphtheria in the order named. As would be expected at this time of year the number of cases of these diseases is relatively low.

SMALLPOX

As usual smallpox presented itself in numbers out of proportion to the other communicable diseases. Forty-three cases of this disease were reported which is the greatest number reported for the month of August during the last seven years. One thousand nine hundred and thirteen cases of smallpox were reported for the year 1929. For eight months of 1930, 2,814 cases are on record. The figures for eight months of 1930 exceed those of the whole year 1929 by 901.

WHOOPIING COUGH

Although among the most prevalent diseases the number of cases of this disease was relatively low, only 38 cases as against 100 cases for the same period of 1929.

SCARLET FEVER

This disease was likewise low, only 27 cases being reported as compared with 53 for the corresponding month of 1929. The figure for the current month is the lowest during the last seven years.

POLIOMYELITIS

Sharing the experience of other states, Iowa has seen an increase in the number of cases of poliomyelitis. Previous to July 1, 1930 only one case of this disease was reported. This case occurred in April. For the month of July 9 cases were reported. For August 16 cases were reported. The 9 cases in July were reported from seven counties, viz., Benton, Cass, Greene, Harrison, Page, Pottawattamie and Sioux. For August, the 16 cases were reported from ten counties, viz., Black Hawk, Cass, Cherokee, Dubuque, Emmet, Marshall, Osceola, Palo Alto, Pottawattamie, and

Shelby. For the first 18 days of September 46 cases were reported divided among the counties as follows: Adams 2, Black Hawk 12, Buchanan 3, Cherokee 2, Crawford 1, Decatur 1, Dickinson 1, Emmet 2, Grundy 1, Lyon 2, Marshall 4, Montgomery 1, Muscatine 1, Polk 6, Pottawattamie 2, Ringgold 2, Scott 1. This makes a total of 71 cases from July 1 to September 18. A total of 76 cases was reported for the year 1929. Cases were reported in every month, with the greatest number (26) being reported in October.

Many requests for information as to the value of immune serum as a prophylaxis for known contacts with a case have been received. In answering these letters the statement has been made that the usefulness of convalescent serum for prophylaxis has not been proved, but that at least, the administration of such serum to known contacts can do no harm. Also if a passive immunity is produced by its use, such immunity is of very short duration. On the other hand, the use of convalescent serum for the treatment of an acute case is recommended. When given during the first two days of the acute disease paralysis does not ensue. Convalescent serum may be obtained from the Glomset Laboratory, Des Moines.

The exact cause of poliomyelitis is not known. There is evidence that the virus is present in the secretions of the nose and throat and possibly in the bowel content. It is supposed that the infection is spread by healthy carriers.

Strict quarantine for a period of not less than 21 days should be imposed upon acute cases of poliomyelitis. If the fever should continue beyond this three weeks' period, quarantine should be prolonged until the temperature is normal. Concurrent disinfection should be practiced and terminal disinfection by means of soap and hot water, exposure of bedding to direct sunlight, etc., to the satisfaction of the health officer should be made a condition of release from quarantine.

It is expected that the peak of the increase has been reached and that while reports of more cases will be received the number of such reports will diminish from week to week.

The JOURNAL of the Iowa State Medical Society

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Nephrology

II. DISCUSSION OF TERMS

Before attempting to classify these disorders, it seems advisable to discuss some of the terms which are employed in describing them.

Christian¹ in his recent excellent monograph on renal diseases, groups them all under the term "Nephritis." Now, it is, of course, true that non-bacterial poisons are capable of simulating or even duplicating the reactions set up in the tissues by bacterial products, nevertheless, the ending "-itis" has come to stand almost exclusively for the inflammatory reaction set up by the action of microbic poisons. Therefore, for the sake of clearness, the term "Nephritis" is limited in these articles to those diffuse proliferative and degenerative changes in the kidneys which are definitely of bacterial origin. The whole group of diseases which have as an anatomical characteristic similar, diffuse parenchymatous changes is designated "Bright's Disease."

Chronic interstitial nephritis is a misnomer. In the first place, inflammatory changes are practically absent in the pure type. In the second place, the renal units are quite as much involved as in the parenchymatous type. The changes found in this condition are those of hypertension. Hence, the disease will be considered under the term "Hypertensive renal disease."

Nephrosis was first suggested by Mueller² as a name for a disease of the kidneys in which there was decreased amount of urine, edema, marked albuminuria with casts, but no red blood cells, and marked tubular fatty degeneration with little or no glomerular damage. Since that time, the term

has become very popular and has been amplified considerably, so that at the present time the picture of nephrosis also carries with it a cholesteremia and a disturbed balance of the blood proteins and also has come to include amyloidosis of the kidneys. Personally, I have not determined either the cholesterol content or the amount of globulin and albumins in the blood of nephritic patients. But I have never seen a case of typical nephrosis in 3000 autopsies. Fatty degeneration of the tubules is a striking feature of both sub-acute and chronic nephritis, and it seems absurd to assume that the large amount of albumin excreted by the cases reported could come from the tubules. All admit that nephrosis is rare and Christian³ states that he has been unable to find true nephrosis in the cases studied by him. Hence, if true nephrosis occurs at all, it must be so rare as to have little clinical significance.

Uremia is an ancient, venerable heirloom in renal literature. As it has rolled on from textbook to textbook, it has strangely enough gathered much moss, so that today three forms of it are recognized, viz., the delirious type seen at times in nephritis in which the sick grow restless, then delirious, and finally comatose; the convulsive type in which the patient has twitchings, one or more convulsions, and becomes unconscious; and then the third type in which, towards the end of the hypertensive renal disease or true nephritis, the patient grows progressively weaker and duller, has a pronounced urineferous odor, and finally goes to sleep, often never to awaken again. In the last type, there is always a piling up of protein metabolites in the blood, and it has been definitely shown that the increase of urea in the blood will cause just such symptoms. Hence, the third variety may be justly called uremia. But in the convulsive and in the delirious varieties, there are no abnormal amounts of protein split products in the blood, and an unknown poison is therefore assumed to be responsible. There is no evidence of such a poison. Delirium followed by coma is the clinical picture of edema of the brain, and some cases promptly get well by tapping the spinal fluid. Convulsions followed by unconsciousness are of common enough occurrence in certain types of hypertension and certainly occur with relatively normal kidneys. Pal⁴ holds these to be due to spasms of the cerebral arteries, since the patient often wakes up without any paralysis. They are probably more frequently due to small cerebral hemorrhages. At any rate, since both the delirious and the convulsive type of uremia may occur without renal lesions to account for them, there seems no valid reason for classing them under the term uremia.

Cardio-vascular-renal disease is simply an attempt to describe hypertension without mentioning the high blood pressure. It is clumsy and awkward and should have no scientific standing.

Having thus cleared the deck for action, a working classification becomes easy and simple. The following arrangement, representing as it does an anatomical grouping, is one of the simplest advanced. However, even this is entirely too elaborate for clinical application.

I. Nephritis.

(a) Glomerulo-nephritis.

1. Acute.
2. Chronic.

(b) Focal Nephritis.

1. Focal glomerulo-nephritis.
2. Focal septic interstitial nephritis.
3. Embolic focal nephritis.
4. Diffuse purulent interstitial nephritis.

II. Nephrosis.

(a) Acute.

1. Cloudy swelling.
2. Diabetic nephrosis.
3. Necrotizing nephrosis.

(b) Chronic.

1. Chronic parenchymatous nephritis.
2. True nephrosis.
3. Amyloid kidney.

III. Hypertensive Renal Disease.

IV. Arteriosclerotic Kidney.

V. Eclamptic Kidney.

The foregoing classification may be appropriately abbreviated since focal nephritis of various types is of interest only to the morbid anatomist. It has already been indicated also that nephrosis, if it exists at all, is so rare as to be of no clinical significance. The same is true of acute suppurative interstitial nephritis, the arteriosclerotic and the eclamptic kidney. Hence, the only necessary classification, from a clinical point of view, is:

I. Glomerular Nephritis.

- (a) Acute.
- (b) Chronic.

II. Hypertensive Renal Disease.

The articles that follow will deal with these two conditions.

Daniel J. Glomset, M.D.

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SHOULD SPECIALISTS BE LICENSED?

Much has been written in both medical and lay literature during the past few years relative to the ever increasing tendency toward specialization in medical practice. In every discussion having to do with the high cost of medical care the influence of specialization is appropriately discussed. Again in a consideration of the dearth of physicians in rural communities specialism is discussed as an important factor. In a recent article syndicated by one of the larger press services entitled "What Shall We Do With the Surplus Crop of Baby Specialists?" the columnist has indicated that there is an oversupply in this specialty as well as several other specialties. In closing his discussion he states: "I contend it would be a great blessing to the race if a large share of the specialists now in business were compelled to engage in general practice for, say, ten years or so, and then, on presenting satisfactory evidence of a fair record in practice, allowed to pose as specialists if they wished to limit their practice to some restricted field. If I were made marshal of the great exodus I'd place the baby specialists at the head of the parade; next the skin specialists; then the old-timers who still make a noise like nerve specialists."

That such subjects are timely is, I believe, the decision of every practitioner of medicine, since no doubt a certain large number of men attempting to limit their practice to a specialty either fail or meet with mediocre success because of a lack of background which can be secured only by considerable experience covering all branches of medical practice. Apropos of this point the New York Academy of Medicine has gone on record as favoring a special license for specialists. Their resolution has been prefaced by the following comprehensive statement: "To be called a specialist, should indicate to the profession as well as to the public that the physician has had special training beyond that required of the general practitioner." Therefore, it has gone on record as favoring state licenses for each specialty—in addition, of course, to the license of a general practitioner.

MATERNAL AND INFANT MORTALITY

The following extract is presented without editorial comment for the purpose of stimulating research along a little known line of thought concerning the frequency of puerperal septicemia in countries having a high maternal and infant mortality rate.

"Many excellent articles on maternal and infant mortality have been written recently. All

of them seek to saddle the blame for our unenviable position as a nation, in relation to maternal mortality, onto those who conduct the labor and after-care. In my judgment, that is only half the story. From the tables which accompany some of those excellent articles, they prove certain things which they do not intend to prove.

"Germany, Chile, Spain and the United States are tabulated as having a high rate of septic mortality. In comparison, Canada, Denmark, England, Wales and Sweden have a low septic rate. Who believes that the doctors in the second group are so superior to those in the first? Is it not rather a difference in the women themselves? Are there not more idle women in the first group of nations than in the second? Is it not a fact that hard working women are less troubled with sickness incident to labor than those who have much leisure? In England women do a great deal of walking as well as working, which tends to develop a normal pelvis and good muscles, with the natural result that there is less necessity for instrumental interference during labor. In the high mortality group of nations it seems just possible that there are more women who live in apartments, without yards or gardens and with greater deficiencies in vitamin bearing foods, lack of adequate exposure to ultra-violet radiation, and almost no walking or work to do, all of which result in not only deficient musculature and faulty pelvis, but lowered resistance to infection and toxemia.

"The purpose of this communication is to stimulate research in a new direction."

Ross E. Gunn, M.D., Boone, Iowa.

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HEALTH EXAMINATION REQUIRED OF PEDDLERS

It has recently come to our attention that the city of Dyersville, Iowa, has passed definite legislation requiring peddlers, agents or solicitors of any kind or nature to furnish a health certificate secured from the city health officer or a licensed physician of Dyersville before being granted permission to solicit in the city.

This ruling, it is stated, has been passed in order to protect the people of Dyersville, Iowa, from the spread of infectious diseases, and to guard against the bringing of such diseases into the city. Since the rule provides that a fee not to exceed \$5.00 can be assessed for such a physical examination, the move will not only go far towards protecting health in the city but will prevent an influx of indigent peddlers.

It has not come to our attention that such a rule is effective at other points but it would seem a wise provision in the furtherance of public health. Epidemics of considerable scope have in the past been traced to itinerants particularly of the peddler class, and an ordinance such as that adopted by Dyersville would be a great forward step in any community in lessening or eliminating this health hazard.

ANNUAL MEETING OF THE AMERICAN PUBLIC HEALTH ASSOCIATION

The fifty-ninth annual meeting of the American Public Health Association will be held in Fort Worth, Texas, on October 27th to 30th. Some indication of the importance of this convention may be had from the extensive program which announces some two hundred speakers who will address the forty-four sessions and symposia which will be held during the four days of the convention.

Dr. A. J. Chesley, president of the American Public Health Association and Commissioner of Health for the state of Minnesota, and Dr. Hugh S. Cumming, Surgeon General of the Public Health Service of the United States and president-elect of the Association, will be headline speakers.

The convention bids fair to be an outstanding event in public health work, and because of the large scope of interest covered by the program should attract a very large attendance.

Among the entertainment features of the convention will be a Texas barbecue and rodeo as well as an inspection trip to surrounding towns in Texas. A nine-day, all-expense tour into Mexico with a five day stop in Mexico City, has been arranged for Association members and their families.

For full program and details of the convention address Homer N. Calver, Executive Secretary of the American Public Health Association, 370 Seventh Avenue, New York City.

NAPRAPATHY INJUNCTION SUIT TO BE HEARD

In the September Journal attention was called to the petition filed in Linn county district court to enjoin Banner Howard, Naprapath, of Cedar Rapids, from the further practice of medicine without license. This petition has been heard by Judge Atherton B. Clark in the district court and the defendant has been given fifteen days to plead. It has been stated that Dr. Oakley Smith, head of the Chicago College of Naprapathy and Dr. H. McClellan Hess, president of the National Naprapathic Society, have recently visited Iowa for the purpose of lending assistance to those naprapaths now being enjoined. They propose to resist the injunction in an attempt to make the state recognize naprapathy. The state of Iowa, through Health Department Inspector Herman B. Carlson, is attempting to restrain naprapaths from practicing their system of healing without license.

A Journey to Spain

OTIS WOLFE, M.D., Marshalltown

We sailed from New York on the Steamer "France" on a cold, blustery February day. After we cleared the outer harbor, we set a due south course and began to enter the Gulf stream that night. The next day, we awoke to find we had sailed into glorious, balmy spring. It seemed almost like a magician's trick. The balance of the trip was over a semi-placid sea as little turbulent as an inland lake.

Our course brought us in seven days to Santa Cruz de Teneriffe, Canary Islands, a bit of old Spain in a semi-tropical setting. It was in this harbor that Lord Nelson lost his arm in a naval engagement with the French. The islands have a profusion of tropical foliage and vegetation. They are cooled by ocean breezes on all sides. A trip around the island by car is a revelation of beauty; the island is of volcanic origin and is intensively cultivated; it is truly an earthly paradise. The vineyards and olive groves reach high up on the mountain sides. It is thickly populated; no evidence of race suicide here. The people are sturdy and healthy looking. The women carry heavy loads on their heads; we saw one woman with a large basket stop to chat fifteen minutes and it never seemed to occur to her to set the basket down while she visited. After long scrutiny, we finally saw one man with a small basket. Evidently the women do the work.

One day's steamer sailing brought us to Casablanca, Morocco. We went by auto to Rabat, a distance of fifty miles. Rabat is the residence of the Sultan of Morocco. He is an absolute monarch and also the head of the Morocco Mohammedan church. Morocco is an independent principality but under the protection of the French. Much knowledge of native psychology has been displayed by the French in handling the Moors here as well as the Arabs in Algiers. We visited the Sultan's palace during Ramadan, which corresponds to our Lent, and on a Sunday at the hour when he visited his private mosque. He maintains a small native army, the majority of which are black Nubians. These were decked out in the most gorgeous colored uniforms, some of them mounted on beautiful Arabian steeds. The Sultan rode to the mosque in an ornate carriage

presented to the father of the present Sultan by Queen Victoria. Custom decrees that he must ride back on a mule. His resplendent retinue was preceded by a large but somewhat discordant band, all wearing fezes and baggy uniforms. It looked for all the world like a black and tan Shriner's parade. There were six drum majors tossing their batons in the air and about a dozen cymbal players. Following the band were a score of the most beautiful Arabian horses I have ever seen. These were the private mounts of the Sultan and were led by black grooms. Following these were the dignitaries of his court. Then came the Sultan, reclining on the soft pillows of his divan-like carriage. He is ruler of the faithful and worshiped almost as a god. Footmen waved long strips of gauze-like material, as some sort of a ritual. They also served the practical purpose of keeping off flies and mosquitoes. No unbeliever has ever set foot in a Moorish mosque. The Moorish Mohammedan is the most exacting of all the adherents of Islam. The faithful partake of no food or indulge in no amusements whatever from sunrise to sunset during Ramadan. The very holy men subject themselves to the strictest discipline; some do not even

This article has been especially prepared for the JOURNAL by Dr. Otis Wolfe of Marshalltown, outlining his impressions and experiences in the surgical clinics of Spain. The article will be published in three installments.

swallow their own saliva. The old walled city of Rabat was once the lair of Moorish bands that swooped down like birds of prey on unaccompanied ships of these seas. Many a Christian maiden graced the harem of the despotic Sultan, while the captive males toiled in ignoble slavery for their pirate captors. The pure blooded Moorish population whose fathers once ruled the Iberian peninsula and threatened all of Europe are now but a remnant of the population. Spain today bears in the beautiful Alhambra mute testimony of the resplendant beauty and lavish oriental idealism of these Moorish invaders. They reached the zenith of their power and glory during their sojourn on European soil in Spain. They created an epoch in history that still fascinates the lover of oriental splendor and romance. After they were driven out of Spain, they reverted to a much lower standard of living. They have never entirely regained it on their own soil in Morocco.

I had visioned this part of Africa as a desert.

It is far from such. There is a wide strip along the coast of Morocco and Algiers that looks much like central Kansas and Nebraska. It is rich in minerals, forests and other resources and is fairly good farming country for wheat, vegetables, etc. This country is attaining much development under French guidance. Here is truly a meeting place of the dim past with modernism. Along side of fine motor roads, the Arab rides on his camel or burro, (African Ford). In one field is a burro and a camel or an ox hitched together plowing with an ancient forked stick. Across the road perhaps, is a modern tractor chugging along.

On to Gibraltar next day. Its grandeur and majesty are awe-inspiring. It truly portrays the dominance of Britain on the seas. Its population is a polyglot of all the Mediterranean peoples with a mixture of European.

The next day to Barcelona, Catalonia, queen city of Spain; pride of the Catalans. We were reluctant to leave the "France." We had not experienced one dull moment from the time we had stepped aboard. It was like living in Paris. The service and cuisine left absolutely nothing to be desired.

The Spanish custom officers are very zealous in searching for cigars and cigarettes. Their manufacture is a government monopoly and the duty on them is high.

Barcelona is a modern industrial city of a million people; an industrial city with no pall of smoke. Its power is all electric, generated by hydro-electric projects in the snow-capped Pyrenees seen in the distance. The new part is as modern as Paris. It is the ancient kingdom of Catalonia. The people pride themselves on being Catalans and different from the rest of the Spanish peoples. Marshal Joffre, commander of the allied armies of the world war, was a French Catalan. They are a member of the ancient kingdom of Aragon. In the fifteenth century, Ferdinand of Aragon married Isabella of Castile and the Catalans of the Iberian peninsula became a part of United Spain. Columbus landed here, presented his Indians and trophies to Ferdinand and Isabella. They attended mass in the cathedral, part of which is still standing. This is situated in the old Spanish town which is truly a picture of old Spain. The museums and historical relics are as interesting to the student and traveler as in the other parts of Europe that are more often visited and better known. Spain is off the beaten path and consequently less known. Outside of Madrid, Barcelona and Seville, Spain still lives in the past.

On entering the harbor at Barcelona, the first thing that is seen is a fine statue of Columbus looking out across the sea, toward the land of his dreams. I met a famous German linguist while

there who was studying ancient records and investigating claims that the Catalans have made to the effect that Columbus was a Catalan rather than a Genoese. He had been previously very skeptic but after investigating, he said, "The evidence is quite as good in supporting this contention as it is to the contrary. It fits other known facts of history, especially those recorded by his son."

Barcelona is a beautiful modern city set in a land that is still medieval in thought and act. The Barcelona Exposition of last year was one of the finest and most unique in the history of national fairs. Many of the buildings and excellent landscapings are permanent. The fountain and night fountain and electric display are said to be the finest ever exhibited.

Spain as a whole is illiterate; only five per cent can read and write, and there are no schools to speak of except those maintained by the church. There is no middle class; one is either an aristocrat or clergyman or just a peasant or tradesman. You are born in one class and you stay in that class. There is little chance for advancement. The land is owned largely by big estates in the hands of the nobility or of the church. The aristocrats live in an atmosphere of superiority and elegance that has changed very little since medieval times when feudal lords ruled the country. The common people in the small towns and the peasants in the country, live in squalor and ignorance that is pitiful. They seem happy and contented, however. Many of them exist and raise families on one or two pesetas a day (12½ to 25 cents). The nobility and upper classes say, "Why educate them so they will know any difference? It would only make them discontented and unhappy."

In progressive and modern Barcelona, this condition is rapidly changing. The Catalans do not love the aristocratic and ruling Castilian. They are great admirers of our democratic institutions. A middle class is slowly but surely forming. They want a republic badly and they undoubtedly will be the crystallizing element in attaining a democratic form of government in the not distant future. In the world war they favored the allies while the Castilians favored Germany. American movies and autos are most popular. The Catalans are a handsome race, somewhat stout and sturdily built as are all mountaineers. They have dark, olive complexions with beautiful dark eyes and raven black hair. They are very courteous, very honorable and honest. For instance, the taxi drivers decided to raise their rates and to dispense with the tipping evil. They did so absolutely, much to my surprise. I repeatedly offered tips, as is the custom in Europe if you expect service, but not once was one accepted. With much bowing and with polite phrases, it was returned.

SOCIETY PROCEEDINGS

Cerro Gordo Meetings

The Cerro Gordo County Medical Society held its regular meeting Tuesday, August 19, at the Mason City Country Club. Dinner at six-thirty was preceded by a brief business session. Mr. J. L. Barrett from the Educational Department, Physio-Therapy Division of the General X-Ray Corporation, delivered an address on the physical effects of light. This was a very interesting and instructive lecture and we certainly appreciated the services rendered by the General Electric Company.

The next meeting of the Cerro Gordo County Medical Society was held Tuesday evening, September 16, at the Eadmar Hotel. Following a six-thirty dinner a short business meeting was held, after which Fred M. Smith, head of the Department of Medicine, University of Iowa presented Studies of Gastric Pain. This is probably one of the most valuable studies that has been made recently on gastric pain.

T. E. Davidson, M.D., Sec'y.

Dubuque County Annual Meeting

The Seventy-seventh annual meeting of the Dubuque County Medical Society was held Tuesday, September 23, in Dubuque. After a noon luncheon at the Julien Dubuque Hotel, the following scientific program was presented: Appendicitis and Intestinal Obstruction, N. M. Percy, M.D., professor of clinical surgery, University of Illinois College of Medicine; Recent Development in Diseases of the Blood, C. W. Baldrige, M.D., assistant professor of theory and practice of medicine, State University of Iowa College of Medicine; Management of Breech Presentation, motion pictures by J. B. De Lee, M.D., which were presented by D. A. Horner, M.D., assistant professor of obstetrics, Northwestern University Medical School. The entire session was well attended, seventy-five members and guests being present.

Fayette County

Monday, September 15, twenty-six members and guests of Fayette County Medical Society met in Fayette for a business and scientific session.

Hardin County

J. W. Kime, M.D., of Fort Dodge, was the speaker of the evening at the bi-monthly meeting of the Hardin County Medical Society held in Ackley, Thursday, September 18. Following a six o'clock dinner, Dr. Kime presented a paper on Light in Therapeutics, which was followed by a clinical demonstration.

Humboldt County

Members of the Humboldt County Medical Society were hosts to physicians from Kossuth County Wednesday, September 10, at a meeting held in Dr. Sproule's office in Humboldt. Various medical sub-

jects were informally discussed, especially pernicious anemia. Officers for 1931 were elected as follows: Dr. William M. Shipley of Ottosen, president; Dr. E. L. Watson of Bode, vice-president; Dr. Asaph Arent of Humboldt, secretary and treasurer. Dr. Arent and Dr. Shipley were elected as delegate and alternate delegate to the State Medical Society.

Ida County

The Ida County Medical Society held a meeting at the Baxter Hotel in Ida Grove, Tuesday evening, September 16, to consider what measures would be best to employ for the protection of the community against infantile paralysis. The meeting was thought necessary because of the fact that there have been seven cases of the disease reported in Ida County and several more in surrounding territories.

Jackson County

The fall meeting of the Jackson County Medical Society was held Wednesday, September 18, at Lakehurst, near Maquoketa. After a one o'clock luncheon, served at the Riverside Country Club, the program was presented and consisted of: Gangrene, Howard L. Beye, M.D., Iowa City; Some Mistakes in Diagnosis, William A. Rohlf, M.D., Waverly; State Society Services, Vernon D. Blank, Des Moines; and Life Insurance Examinations, John I. Marker, M.D., Davenport. The Woman's Auxiliary, temporarily organized some time ago, met and formed a permanent organization, with Mrs. F. J. Swift of Maquoketa and Mrs. E. L. Lampe of Bellevue continuing in the respective offices of president and secretary-treasurer.

Forty-five members and guests were in attendance at this meeting, thereby breaking the record established by the Jackson County Society several months ago. Eighteen out of the nineteen members of the society, were present throughout the session.

Johnson County

The first meeting of the Johnson County Medical Society after the summer recess was held in the American Legion Building, Iowa City, Wednesday, October 1. Hosts for the evening were Drs. Budd, Cole, Kimball, Lee, C. I. Miller, Netolicky, Pfohl, F. M. Smith, VanEpps, Whiteis and Williams. The scientific program consisted of Diagnosis, F. J. Rohner, M.D., and Posture in Gynecology, Norman F. Miller, M.D., discussion opened by H. J. Prentiss, M.D.

Linn County

Samuel F. Haines, M.D., of the Mayo Clinic in Rochester was the guest speaker at the first regular meeting of the season of the Linn County Medical Society which was held in Cedar Rapids, Thursday, September 11. Dr. Haines discussed Diagnosis of

Hyperthyroidism, a field in which he has done a great deal of research.

Louisa County Chest Clinic

Members of the Louisa County Medical Society met in Columbus Junction, Friday, September 12, for a heart and lung clinic which was conducted by Drs. John H. Peck and C. B. Luginbuhl of Des Moines. A business meeting of the society was held in the afternoon.

Marion County

Dr. and Mrs. H. C. Payne entertained at a six-thirty dinner held in Pella, Thursday, September 11, honoring members of the Marion County Medical Society. Following the dinner a society business session was held and various local medical economic problems were given consideration.

Corwin S. Cornell, M.D., Sec'y.

Monroe County

Thursday, September 11, the Monroe County Medical Society and Woman's Auxiliary met in Albia for a dinner meeting. After the six-thirty dinner, the members of the medical society convened in the office of Dr. S. T. Gray for a business meeting and the ladies were entertained at the home of Dr. and Mrs. T. R. Castles.

Polk County

Regular meetings of the Des Moines Academy of Medicine and Polk County Medical Society were resumed Tuesday evening, September 30 at the Hotel Fort Des Moines. About twenty members and their guests dined at the hotel preceding the program.

At eight o'clock the meeting was called to order by President Edward J. Harnagel. Nelle S. Noble, M.D., presented a case report on a patient suffering from purpura hemorrhagica. The patient who was presented, showed marked pallor and had developed petechia and ecchymosis. The case was briefly discussed by R. H. Jaffé, M.D.

The address of the evening was then delivered by R. H. Jaffé, M.D., pathologist of the Cook County Hospital, Chicago. His subject was The Visceral Changes in the Late Stages of Acquired Syphilis, with Special Reference to Syphilitic Aortitis. The lecture was discussed by Drs. Walter L. Bierring, Julius S. Weingart, W. E. Sanders, M. E. Barnes, professor of preventive medicine and hygiene, Iowa University Medical School, and Dean Henry S. Houghton, of the State University of Iowa College of Medicine. Many additional questions, together with the answers which they drew from Dr. Jaffé, added to the value of the address.

The names of members admitted to the society since the May meeting were read and those present introduced. The proposed physicians' bureau was briefly explained. The absence of routine business in the meeting was delightfully noticeable. Over one hundred members and visitors were in attendance at the session.

Poweshiek County

The Poweshiek County Medical Society met in Deep River, Thursday, September 18 for an evening meeting. E. F. Talbott, M.D., of Grinnell, was the speaker of the evening, taking as his subject, The Thyroid Gland.

Ringgold County

Physicians in Ringgold and surrounding counties attended a meeting of the Ringgold County Medical Society held in Mt. Ayr, Thursday, September 18. The following program was presented: Infant Feeding, Fred Moore, M.D., Des Moines; U. S. Public Health and County Health Unit Law of Iowa, E. R. Coffey, M.D., Washington, D. C.; State Society Services, Vernon D. Blank, Des Moines.

Scott County

Members of the Scott County Medical Society held their initial fall meeting at the Davenport Chamber of Commerce, Tuesday, September 2, with J. C. Masson, M.D., of the Mayo Clinic at Rochester as the speaker of the evening. Dr. Masson, widely known surgeon and specialist in gynecology, spoke on that subject.

Webster County

The first fall meeting of the Webster County Medical Society was held Tuesday, September 23, at St. Joseph's Mercy Hospital. Dr. Homer W. Scott was taken into membership, his transfer from Johnson County Medical Society being accepted. Walter D. Abbott, M.D., a neurosurgeon and neurologist of Des Moines, presented the paper of the evening. His subject was Sympathetic Ganglionectomy in the Treatment of Vascular Diseases. This paper was well illustrated and markedly instructive to all those present at the meeting. There was a short discussion following the paper.

John C. Shrader, M.D., Sec'y.

Woodbury County

Monday, September 29, the regular meeting of the Woodbury County Medical Society was held at the Elk's Club. The transfer cards of Drs. Clifford Jones and Joseph Dvorak were approved and Drs. A. Q. Johnson and Lawrence Pierson were elected to membership. The address of the evening was delivered by William A. Rohlf, M.D., of Waverly, who is the president of the State Medical Society. His subject was Mistakes in Diagnosis and the talk was most instructive and interesting. Dr. Robert L. Parker, of Des Moines, secretary of the State Medical Society, was a guest of the society and spoke briefly upon state society activities and the society's journal. The meeting closed with the showing of two motion pictures: Treatment of Colles Fracture and Operation for Hydrocele. These pictures were exhibited by the courtesy of the Petrolagar Laboratories.

INTERESTING NEWS

In Brief

During the twenty-four years in which the National Tuberculosis Association has received money from the sale of Christmas seals, the tuberculosis death rate has been reduced, according to this agency, fifty-five per cent, whereas the general death rate from other causes has been reduced but ten per cent. This year's allotment of seals for Iowa has been placed at 45,000,000—5,000,000 more than have been sold in any previous year. A more complete statement of the 1930 Christmas seal campaign will be presented in the November issue.

In a recent issue of the *Northwestern Banker*, published at Des Moines, Dr. E. E. Bamford, head of the Bamford Clinic at Centerville, Iowa, is reported to have advanced a plan for farm relief which is both original and, according to financiers, entirely useful. The plan in brief, according to this magazine, is: "A government bond issue to underwrite farm mortgages held by banks, insurance companies, etc., would eliminate forced farm sales and enable the hard pressed farmer to make a substantial comeback."

A study completed by Dr. Charles E. Terry of New York, indicated that in cities the per capita use of narcotics ranged from three and one-half grains to seventeen grains per year. This fact has prompted Surgeon-General Cumming of the public health service to order an investigation of the use of narcotics throughout the United States. The program has been endorsed by scientists, manufacturers, and will be furthered by the American Medical Association and the American Pharmaceutical Association.

At a recent meeting of the Washington County Medical society, Dr. E. T. Wickham, its president, proposed the organization of a medical library for the use of the society. As a nucleus for such a library Dr. Wickham has volunteered to donate his private medical library, numbering 250 to 300 volumes. A committee has been appointed to work out the necessary details.

A total of \$37,200 has been made available in Woodbury county for the establishment of a county health unit. The plan will be under the supervision of Dr. E. R. Coffey, of the federal public health service. The organization will cooperate with and supervise existing health and charity organizations in Sioux City and Woodbury county.

A campaign is being conducted at this time at Audubon, Iowa, to raise by subscription \$20,000, to be used with the gift by the late Charles Van Gorder of \$10,000, for the erection of a hospital at Audubon. Plans have been tentatively approved for a plant to care for nineteen patients together with the necessary laboratory and x-ray facilities.

The annual session of the Iowa-Nebraska Hos-

pital Association was held at the Mercy hospital at Burlington, Iowa, on October 3d and 4th. The opening address was delivered by the Rev. Alphonse M. Schwitalia, S. J., dean of St. Louis University and president of the Catholic Hospital Association of the United States and Canada.

At the general election in November, voters of Boone county will be asked to decide whether the Eleanor Moore county hospital shall have a new nurses' home. It is proposed that \$17,500 be taken from the hospital fund for financing the proposed building.

A new medical center is being built in New Haven, Connecticut, for the housing of the New Haven hospital and the Yale medical school. It is expected that the new units will be ready for occupancy later this fall.

The McCrary hospital at Lake City, Iowa, has just undergone considerable alteration and will shortly be reopened as the Lake City General Hospital. The medical personnel of the hospital will remain unchanged.

Dr. David Arthur Welch, of the American Society for the Control of Cancer, is credited with the statement that statistical study of the past few years reveals the fact that one person out of every seven attaining the age of thirty dies with cancer.

PERSONAL MENTION

Dr. Roy L. Corbin, formerly of Norway, Iowa, has purchased the practice of Dr. P. V. Janse at Luverne, and will be located there after October 15.

Dr. O. H. Miller, of Estherville, sailed October first for Vienna, where he will spend a year doing post graduate work in obstetrics and gynecology. In his absence Dr. L. W. Loving, of Laurens, will take care of his practice in Estherville.

Dr. Tom B. Throckmorton, of Des Moines, attended a recent meeting of the Chicago Neurological Society at which Sir James Purves-Stewart, widely known British neurologist, spoke.

Dr. E. D. Plass, of Iowa City, has recently been appointed a member of the newly organized American Board of Obstetrics and Gynecology. The Board plans to serve this specialty in the same manner as the American Board of Otolaryngology does that field. Dr. Plass was also elected to the National Board of Medical Examiners to fill the vacancy occurring when Dr. Joseph B. De Lee's term of office expired.

Dr. Ward W. Hedlund, on the staff of the U. S. Veterans' Hospital at Knoxville, has been transferred to Newark, New Jersey, where he will report about October 15.

Dr. Homer W. Scott, formerly of Iowa City, has opened an office in Fort Dodge, where he will specialize in surgery. Previous to this time, Dr. Scott had practiced in Fort Dodge, but left in 1927 for Iowa City, where he has been assistant professor of sur-

gery at the State University of Iowa for the past three years.

Dr. F. L. Wahrer, of Marshalltown, was named secretary of the American Congress of Physical Therapy at the closing session of the organization Wednesday, September 10. The next meeting will be at Omaha.

Dr. J. M. Cadwallader, formerly of Millersburg, has taken over the practice, office, and equipment of Dr. R. N. Reuber, of Sheffield, and will practice there. Dr. Reuber is leaving for New Haven, Connecticut, where he will take a special post graduate course.

Dr. E. E. Heaton, of Centerville, announces the association of Dr. E. A. Larsen with him in the practice of medicine. Dr. Larsen is a graduate of the State University College of Medicine, and has taken special work at Rochester, and obstetrical work at Johns Hopkins Hospital.

Dr. P. V. Janse, who has practiced medicine at Luverne for twenty-seven years, is leaving and will locate in Algona about November 1.

Dr. J. Alvin Jefferson, of Des Moines, was recently honored at a meeting of the National Medical Association by being elected secretary of the Medical Section.

Dr. William R. Langford, a recent graduate of the State University of Iowa College of Medicine, has located in Vinton as an assistant to Dr. Charles A. Manahan. Dr. Lanford served his internship at the Methodist Hospital in Des Moines and has been doing special work with Dr. E. B. Winnett, of Des Moines.

Dr. John B. Stoll, who graduated three years ago from the State University of Iowa College of Medicine is to locate at Fontanelle in October. Since his graduation Dr. Stoll has spent one year as interne in the Henry Ford Hospital in Detroit, and two years with Dr. McArthur, as an associate surgeon in the Northwestern Hospital.

Dr. R. A. Becker, of Atlantic, has left for Chicago to take a two months' post graduate course under Dr. Daniel Orth, professor of surgery at Loyola Medical School. During Dr. Becker's absence, his practice will be taken care of by Dr. Matthew O'Keefe, of Council Bluffs.

Dr. Stanley Dusdieker, who graduated last year from the State University of Iowa College of Medicine, has opened an office in Valley Junction.

Dr. R. C. Danley, of Hamburg, was elected sergeant-at-arms of the Iowa Department, at the recent Iowa convention of the American Legion. This honor places Dr. Danley on the executive committee of the state organization, and he will go to the national convention of the American Legion held in Boston, Massachusetts, this month.

Dr. Paul H. Beppler, who has practiced medicine in Sioux City and Onawa for the past five years, has located in Remsen.

Dr. Raymond J. Duling is opening an office in Sioux City with Dr. E. W. Meis. Dr. Duling attended

South Dakota University and is a graduate of the Creighton University Medical School.

Dr. Knut D. Holmgren, formerly of Upsala, Minnesota, has located in Ames and opened an office at 2516 Lincoln Way.

DEATH NOTICES

Best, Elmer Ellsworth, of Los Angeles, formerly of Clarion, died at Clarion on August 29 at the age of seventy-two of a hemorrhage following an injury which he received in a fall. He was graduated in 1899 from the University of Illinois College of Medicine. Until his removal to California in 1924, Dr. Best was a member of the Wright County Medical Society.

Egloff, William Jacob, of Mason City, died September 8 in a Chicago hospital at the age of sixty-seven, following a year's illness from anemia. He was graduated in 1887 from North Western University Medical School. At the time of his death he was a member of the Cerro Gordo County Medical Society.

Milligan, William Wright, of Burlington, died September 19 at the age of sixty-four following a brief illness. He was graduated in 1897 from the State University of Iowa College of Medicine. At the time of his death he was a member of the Des Moines County Medical Society.

A SECRETARY OF PUBLIC HEALTH

At the last convention of the American Medical Editors' and Authors' Association the following resolution was unanimously adopted:

Whereas, the health of its citizens is our nation's greatest asset; and

Whereas there is now much duplication of effort and division of responsibility in regard to health matters, as now conducted; and

Whereas labor, commerce, agriculture and other matters of relatively less importance are represented by an officer in the President's cabinet, while the nation's health is not so represented, although such representation has been recommended by the American Medical Association and endorsed in their platforms, from time to time, by both of the major political parties; and

Whereas it seems reasonably certain that the various health activities now in operation could be more efficiently conducted if coordinated under a responsible head; therefore be it

Resolved, That the American Medical Editors' and Authors' Association, in convention assembled (at Detroit, Mich., on June 24, 1930) recommends and urges that steps be taken immediately for the creation of a Portfolio of Public Health, in the Cabinet, and that a copy of this resolution be forwarded to the Secretary of State, Washington, D. C., to the secretaries of all national and state medical organizations and to all members of this Association.

Signed, for the Association:

H. Lyons Hunt, Pres.

E. Vandervoort, Sec.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

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DR. WALTER L. BIERRING, Des Moines

DR. NORMAN F. MILLER, Iowa City

Oscar Burbank, M. D., (Harvard 1848) 1819-1908

A Biography and Appreciation

WILLIAM A. ROHLF, M.D.,
Waverly, Iowa

The following biographical sketch was submitted by Dr. Burbank's granddaughter, Mrs. H. C. Todd, 323 Busch Terrace, Minneapolis, Minn.:

Oscar Burbank was born at Parsonsfield, Maine, on September 25, 1819. He went to the district school of the community and later went through the Academy near there, after which he taught school for several terms. When about nineteen years of age, he went to Boston, determined to earn for himself a better education along professional lines. He worked at the stairbuilders trade, starting as journeyman. He was always apt with tools, and had a mechanical turn of mind, and in time, by saving and industrious habits he owned a shop of his own. This was later destroyed by fire, leaving him nothing in the way of material means, as all his savings were thus invested. At this time he was interested in a young lady whom he offered to release from engagement, explaining that he had lost everything he owned in this fire. However, she was as stout hearted as he, and the engagement soon culminated in his marriage to Caroline Elvira Wait, who had come to Boston from Weston, Vermont. They were married on January 28, 1843.

The young couple lived in Boston for a time. Young Burbank was always making plans for getting more schooling, and decided to enter Harvard University and become a doctor. A daughter, Susan Elvira, was born to them in 1847, but lived only seven weeks. In Harvard as a student, Oscar Burbank witnessed the first operation ever performed under ether, which took place in the Massachusetts General Hospital in Boston. He was always very proud of that experience. Another matter of pride was that he had Dr. Oliver Wendell Holmes as his professor

of anatomy in Harvard and his name appears on the old Harvard diploma dated 1848, when Burbank was graduated as an M.D.

When he emerged from school, he was in debt for money borrowed for the purpose of gaining an education. As the California gold rush was taking the attention of all adventurous souls, he talked it over with his wife. It was planned that he should go west and see if, with his professional services and what prospecting he had time for, he might get together enough money to clear up his indebtedness and make a start in establishing himself as a doctor.



CAT. OSCAR BURBANK

Early in 1849 he sailed from New York, leaving his wife among friends in Lowell, Massachusetts. His party sailed around Cape Horn, and it seemed a long journey before they landed safely in San Francisco. Here a party of five was made up to start camp together, and prospect over the country. Burbank was to take his turn at staying in camp and performing the duties of cook, but the others were looking for gold, while he was to pursue his profession as a doctor and look for gold occasionally when he could. He sent back gold dust to his wife when trustworthy parties were making the trip east, and when he had made enough money to feel repaid for his venture, he sailed for home. This time they sailed to Panama, up the Chagres River, portaged across the Isthmus near where the Panama Canal now is, then sailed up the east coast home. He had gained in medical experience, had learned the Spanish language and had saved enough money to pay all his debts, mostly earned in a professional way in the west. In later years he wrote a most interesting series of articles about those days in the western country and the trips there and back.

On his return to New England in 1851 he practiced for a short time in Lowell, Massachusetts, but soon moved back to his native state of Maine and opened an office in the town of Calais, which is on the north-eastern line of Maine. They lived just across the St. Croix River from the office, but that was in the village of St. Stephen, New Brunswick, British North America, as it was then called. It was here in 1852 that a daughter, Caroline Lutheria, was born. When she was but a year and a half old they migrated to the middle west, where they thought they would like to establish a permanent home. They came by rail to Cedar Rapids, Iowa, then a hamlet of 500, by team on to Waterloo and then on up to Bremer County where the little village of Waverly was being laid out on the banks of the Cedar River. Here, in September, 1854, they chose a home site a couple of blocks from the river and a block south of the main street. They built a temporary shelter, with a blanket for a door and a plank on top a pork barrel as a table, and started housekeeping on the piece of ground which was to be their home the rest of their lives. In 1856 a son was born, whom they named Aldis Wait, after a brother of Mrs. Burbank's.

Dr. Burbank came to Waverly when the surrounding country was unbroken prairie; when all his calls were made on horseback; when at night there was nothing to guide him but the stars; when he called on patients at great distances, as far as above Nashua and below Cedar Falls, for he was the first regular physician in that part of Iowa; when occasional log cabins of the pioneers were the only habitations. Here he spent a busy and long life and few are the persons who lived in that general community during the next fifty years after the founding of Waverly, who have not known Dr. Oscar Burbank.

Dr. Burbank was commissioner for the insane for Bremer County from the time that commission was formed until after he was eighty years old. He was medical examiner for the soldiers going into the Civil War, as well as for those applying for pensions after their return, and sharp indeed did they have to be to escape the understanding of the Doctor when trying to deceive with some assumed or faked disability.

He served the community for more than fifty years. While he always had a comfortable living, his wants were simple, and he was too charitable to lay up any wealth. After calling where there was

sickness and distress, instead of sending a bill for services, he would be just as likely to send a load of wood, if he saw the need. He was absolutely fearless and frank in his professional life and in all his dealings, no more nor less than his honest opinion was ever given. He was very studious and had stored in his capacious brain such a fund of knowledge and experience, philosophy and fun that it seemed a calamity not to be able to place that brain on younger shoulders to carry on.

Dr. Burbank was always handy with tools, and had inventive genius. It made him a good surgeon, one who might have made a name for himself had he cared to work in larger fields, but he had cast his lot with the pioneers of his community and there he

found his life work. It was his relaxation and delight to make pieces of furniture from the native black walnut. His knowledge and skill had been acquired in the early days in Boston as a worker in fancy inside wood work finish and as a stair-builder, which was before the days of mill work. He made his own bookcases to house his medical library, and remodeled and added to his residence from time to time. He invented and made many tools and instruments for his own use as the need arose. A display of these hand made instruments caused much comment at one of the medical meetings he attended. He always maintained a well equipped shop on his premises and spent many enjoyable hours pursuing

his hobby. He was always in demand at gatherings, whether the audience was of medical men, old settlers, or any other group. He never failed to have a message of interest to them and his supply of good stories and wholesome fun was inexhaustible. He never lost the New England habit of dropping his r's, he spoke Spanish quite well, but he could laugh in any language.

Although young in heart and mind, the years took their toll of his strength and vigor, and he moved his office back to his residence where he had at first started. He was anxious to spend more time nearer his wife, who had grown more feeble than he, so they spent much of their last days together. She passed peacefully away on December 8, 1900, at the age of eighty-three.

At the age of eighty-eight Dr. Burbank's mind was still so active and so anxious to keep abreast of the changes in the profession he loved so well, that he

Dr. W. A. Rohlf.
Waverly, Iowa.

Dear Dr. Rohlf:

As I was present when the first surgical operation under the influence of ether was performed you have requested my recollections of it. About the middle of October, 1846, Dr. Warren says Dr. W. T. G. Morton called on him stating that he had the means of producing insensibility during the extraction of teeth and he would like to have Dr. Warren test its power in a surgical operation. In a few days after this (November 26, I am not certain) a young man having a tumor on the left side of the neck just below the left jaw, which had probably existed from birth, was chosen for the experiment at the Massachusetts General Hospital. I remember Dr. Morton was late in arriving which he excused by saying he had made some alterations in his inhaling apparatus. He inhaled the ether from a tube connected with a glass globe. In four or five minutes, he, the patient seemed to be asleep. The operation was begun, with no indications of pain but as the operation proceeded he moved his limbs and cried out but after the operation he said he suffered no pain, but knew of the operation. At the time no one but Dr. Morton knew what the patient inhaled. I remember that when Dr. Warren had completed his operation he stepped forward saying, "Gentlemen, this is no humbug." The gentlemen M.D.'s present as I recall, Drs. J. Mason Warren, his father, the operator, John Collins Warren, Parkman, H. I. Bigelow, Dr. Charles Heywood, house surgeon, Townsend, George Hayward, Dr. A. L. Pierson of Salem, and other surgeons of note whose names I cannot recall after over fifty-three years' lapse of time.

Fraternally,

Waverly, Iowa,
November 30, 1899.

Oscar Burbank.

I wonder how many are alive today who witnessed the first operation.

enrolled in the lecture classes at Drake University in Des Moines. He left home in January, and must have made a queer figure, with his flowing pure white hair and beard, among those young students who were just starting out in the work which he had followed for sixty years. His active brain was a storehouse for more knowledge and experience than it is the fortune of many men to ever acquire, and he found he could give to those classes as much as he could gain from them. He was away from home at a season of the winter when he exposed himself to severe weather every day to attend classes, and caught a bad cold which developed into pneumonia. He knew he could not survive, and was ready when death claimed him after a few days' illness. He passed away in Des Moines, on February 7, 1908. At the time of his death he was the oldest practicing physician in the State of Iowa.

Supplementing the biography of Dr. Oscar Burbank written by his granddaughter, Mrs. H. C. Todd, of Minneapolis, I am sending the following short account of his life as I knew him.

He was a man always devoted to his patients, always honest in his dealings, professionally and otherwise. He was willing at all times to assist and encourage the young doctor in the community. His own studiousness and spirit of investigation he communicated to the younger physicians of the neighborhood. He advocated and brought about meetings of the local members of the profession for mutual study and research. I remember when I first met him in 1897. He brought over a book, a quiz compend that he had written out in his own handwriting and to which he was still adding questions and answers at the age of seventy-seven.

His sense of wit and humor was a delight to his neighbors and friends and there are still many stories and anecdotes told by his old friends at this time. A characteristic of his wit is illustrated in the following instance: The Doctor never entered a saloon except on strictly professional business and his aversion to them was well known. One day three men, all friends of his, invited him in for a drink. He refused, of course, as they expected he would. They then picked him up on their shoulders to carry him in. Dr. Burbank remarked, "Well, well, it took only one ass to carry Christ but I am being carried by three." The crowd, as well as the three who were the butt of this remark, joined in the general laughter and the Doctor was not carried further.

When asked at one time what his middle name was, he remarked: "There were a number of great men who have no middle names, Julius Caesar, Santa Claus, Jesus Christ, and Oscar Burbank.

As the biography states, he spent some time in California during the gold rush and brought home with him some gold dust and gold bearing

rock. One day he took this down town and seriously told a number of men, describing a ledge of rock in the vicinity of Waverly, where he had found this, and the old doctor took great delight when he found these men quietly sneaking away from each other and going out to the spot described to look for this ledge of rock, hoping to make a gold strike.

It is told of him that when he called upon his first patient, after the examination the doctor picked up his satchel and as he started to leave he suggested that they should pay him because he had just arrived in town and was in need of funds. The charge for the call was one dollar. His patient said in answer to his request, "Sure, Doc, we can pay you, but first you should tell me what is wrong with me." The doctor surprised the patient and his family very much by replying, "My friend, you are drunk." The patient responded, "That's right, that's right. Mother, pay the doctor his bill."

These are only illustrations of the many humorous anecdotes relative to the doctor's life in this community. Another event that I remember distinctly is in regard to appendicitis. It was rather hard for the old man, then seventy years of age, to accept the diagnosis and treatment of appendicitis, which at that time was getting to be rather common. He wrote an article extremely humorous, for the lay press on the subject of "Appendicitis." A few days after that he was invited to be present at an operation for appendicitis with abscess, which in those days was the usual condition at operation. After the operation the old gentleman placed his arms about the young surgeon and with extreme show of emotion apologized for his ridiculing the younger men relative to operating for the "Belly ache." Be it said to his credit that he went into the study of appendicitis after this and referred a number of cases for operation.

He always attended our County medical meetings and was often on the program. His studiousness, his honesty, his charity, his ever present humor and cheerfulness, his kindness were an inspiration to all the younger physicians with whom he came in contact. His interest in the profession was so intense, as has been mentioned by his granddaughter, that it took him to Des Moines to enroll in the Medical department of Drake University. It was while attending lectures here that he contracted pneumonia and died. I wish to state here also that at the age of eighty-five he wrote for me a short article describing the administration of ether for the first time as an anesthetic. This letter I have sent to the State Historical Society as a very treasured little docu-

ment. Dr. Burbank was a real exemplification of Dr. McClure as pictured in the "Bonnie Briar Bush."

ANOTHER FORM OF QUACKERY

The most recent, and one of the most unusual forms of quackery has recently been brought to light due to an investigation in Sioux City. One John M. McCauley, operating in Sioux City, was arrested on September 15th, charged with "unlawful vending of drugs or medicine," "practicing medicine as itinerant physician without a license," and "unlawful practice of pharmacy."

It is alleged that McCauley diagnoses the illnesses of his patients by gazing into the patient's eyes, and as a result of this gazing prescribes one of three stock medicines which he dispenses. Chemical examination of the three medicines is said to reveal that the three are identical save for traces of coloring matter. It appears that one prescription is recommended for men, a second for women, and a third in case the first two fail to cure.

UNITED STATES CIVIL SERVICE EXAMINATION

The United States Civil Service Commission announces the following named open competitive examinations:

MEDICAL OFFICER

ASSOCIATE MEDICAL OFFICER

ASSISTANT MEDICAL OFFICER

Applications for medical officer, associate medical officer, and assistant medical officer must be on file with the United States Civil Service Commission, Washington, D. C., not later than December 30, 1930.

These examinations are to fill vacancies in the Veterans' Bureau, Public Health Service, Coast and Geodetic Survey, Panama Canal Service, and Indian Service.

On account of the needs of the service, papers will be rated as received and certification made as the needs of the service require.

Full information may be obtained from the United States Civil Service Commission, Washington, D. C., or from the Secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city.

Examination of candidates for commission as Assistant Surgeon in the Regular Corps of the U. S. Public Health Service will be held at the following named places on the date specified:

At Washington, D. C.; Chicago, Ill.; New Orleans, La., and San Francisco, Cal., on November 3, 1930.

Candidates must be twenty-three years and not over thirty-two years of age. They must have been graduated in medicine at a reputable medical college, and have had one year's hospital experience or two years' professional practice. They must satisfactorily pass oral, written, and clinical tests before a board of medical officers, and undergo a thorough physical examination.

Successful candidates will be recommended for appointment by the President, with the advice and consent of the Senate.

Request for information or permission to take this examination should be addressed to the Surgeon General, U. S. Public Health Service, Washington, D. C.

NEW AND NONOFFICIAL REMEDIES

Eli Lilly & Co.

Amytal.

Pulvules Sodium Amytal, 3 grains.

Old Tuberculin, Human Strain, Concentrated, 2 vial packages.

McKesson & Robbins, Inc.

McKesson's Vitamin Concentrate of Cod Liver Oil.
E. S. Miller Laboratories, Inc.

Ampoule Sterile Solution Dextrose, U.S.P., 5 Gm., 10 cc.

Ampoule Sterile Solution Dextrose, U.S.P., 10 Gm., 20 cc.

Plant Products Co.

Plant's Magnesia Wafers.

Carel Laboratories.

Alpha-Naphco.

Maltbie Chemical Co.

Ephedrine Nasal Jelly-Maltbie.

H. A. Metz Laboratories, Inc.

Elixir of Pyramidon.

Pyramidon Tablets, 1½ grains.

Merck & Co., Inc.

Pyridium

Aqueous Solution of Pyridium, 1 per cent.

Pyridium Tablets, 0.1 Gm.

Pyridium Ointment, 10 per cent.

National Drug Co.

Ragweed Pollen Antigen-National.

Timothy Pollen Antigen-National.

Parke, Davis & Co.

Ephedrine Hydrochloride-P. D. & Co.

Capsules Ephedrine Hydrochloride-P. D. & Co.,
¾ grain.

Capsules Ephedrine Hydrochloride-P. D. & Co.,
¼ grain.

Thio-Bismol

Ampoules of Thio-Bismol.

Pitman-Moore Co.

Siomine

Siomine Capsules, ½ grain.

Siomine Capsules, 1 grain.

Siomine Capsules, 2 grains.

Siomine Capsules, 5 grains.

G. D. Searle & Co.

Ampules Mercurochrome-H. W. & D., 1%, 10 cc.+

Ampules Mercurochrome-H. W. & D., 1%, 20 cc.+

Nonproprietary Article

Alphanaphthol.

The following articles have been exempted and included with the List of Exempted Medicinal Articles (New and Nonofficial Remedies, 1930, p. 477):

H. K. Mulford Co.

Pollen Extracts Diagnostic-Mulford.

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

PHYSICAL DIAGNOSIS—By Richard C. Cabot, M.D.—Massachusetts General Hospital, Boston, May, 1930.—Tenth Edition, revised and enlarged, with six plates and 279 figures in the text.—(The more important new matter introduced relates to coronary disease, electrocardiography, cancer of the lung, cardiac asthma, toxic hepatitis and encephalitis lethargica.)—Publishers, William Wood & Company, New York.—Price, \$5.00, net.

THE DOCTOR IN COURT—By Edward Huntington Williams, M.D.—A book of experiences of the expert medical witness.—With an appendix on expert testimony by Charles W. Fricke, Judge of the Superior Court, Los Angeles County, Published September, 1929—Williams & Wilkins Co., Baltimore.

REPORT ON FIFTH INTERNATIONAL CONGRESS OF MILITARY MEDICINE AND PHARMACY—London, England, May, 1929—By Commander William Seaman Bainbridge, M.C.—F., U. S. Naval Reserve; Member of Permanent Committee Delegate from the United States.—Foreword by C. E. Riggs, Rear Admiral, Medical Corps, U. S. Navy; Surgeon General, U. S. Navy.—Composed, printed and bound by The Collegiate Press, George Banta Publishing Company, Menasha, Wisconsin.

***A TEXTBOOK OF MASSAGE FOR NURSES AND BEGINNERS**—By Maude Rawlins.—With 18 illustrations.—The C. V. Mosby Company, St. Louis, 1930.—Price, \$2.00.

***THE SURGICAL CLINICS OF NORTH AMERICA**—Southern Number, August, 1930.—(Issued serially, one number every other month.)—Volume 10, No. 4.—With 268 pages and 96 illustrations.—W. B. Saunders Company, Philadelphia and London.—Per clinic year—Paper, \$12.00.—Cloth, \$16.00.

***MEDICAL INSURANCE EXAMINATION: MODERN METHODS AND RATING OF LIVES**—By J. Paterson MacLaren, M.A., B.Sc., M.B., C.M. and J.P.—Glasgow University and London Hospitals.—Late Examiner for University of Cape of Good Hope and Chief Insurance Medical Officer.—Second Edition, greatly enlarged.—William Wood & Company, New York City.—Price, \$10.00.

*Review appears in this issue.

CLINICAL FEATURES OF HEART DISEASE—By Leroy Crummer, M.D.—Second Edition, revised and enlarged.—Price, \$4.00—Paul B. Hoeber Company, New York City.

RADIUM IN GENERAL PRACTICE—By A. James Larkin, B. Sc., M.D., D. N. B.—Illustrated—Paul B. Hoeber, Inc., New York. Price, \$6.00.

MANUAL OF THE DISEASES OF THE EYE—For Students and General Practitioners—By Charles H. May, M.D.—Thirteenth Edition, Revised.—With 374 original illustrations, including 23 plates, with 73 colored figures.—William Wood and Company, New York, 1930.—Price, \$4.00, net.

THE COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION FOR 1929—Volume XXI.—Edited by Mrs. M. H. Mellish, Richard M. Hewitt, M.D., and Mildred A. Felker, B.S.—Octavo volume of 1197 pages with 279 illustrations.—Philadelphia and London.—W. B. Saunders Company, 1930.—Cloth, \$13.00, net.

MEDICAL EDUCATION AND RELATED PROBLEMS IN EUROPE—Commission on Medical Education, April, 1930.

***MEDICAL CLINICS OF NORTH AMERICA**—(Mayo Clinic Number.)—May, 1930.—(Issued serially, one number every other month.)—Volume 13, No. 6—and INDEX VOLUME.—Octavo of 275 pages with 55 illustrations.—Per Clinic Year, July, 1929, to May, 1930.—Paper, \$12.00.—Cloth, \$16.00.—Philadelphia and London.—W. B. Saunders Co.

***MEDICAL AND SURGICAL YEAR BOOK**—Physicians Hospital of Plattsburgh.—Comprising Wednesday Afternoon Invitation Lectures, Papers of the Cardiac Round Table, The First Beaumont Lecture, and Collected Papers by the Staff.—The William H. Miner Foundation, Plattsburgh, N. Y., 1930.

***TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA**—Vol. 51—Third Series—1929.—Containing the papers read before the College from January, 1929, to December, 1929, inclusive.—Edited by Walter G. Elmer, M.D.—Published in part by the income from the Francis Houston Wyeth Fund.—Printer: Dornan, Philadelphia.

BOOK REVIEWS

MASSAGE FOR NURSES AND BEGINNERS

By Maude Rawlins. First edition. Price, \$2.00. 144 pages with 18 illustrations. St. Louis: C. V. Mosby Company, 1930.

Massage is not a cure-all, but when indicated is a very valuable adjunct; and when contra-indicated may prove dangerous. The author stresses that the previous knowledge of anatomy and physiology is necessary, and she presents a text suitable for nurses and beginners.

D. M. B.

PHYSIOLOGY AND BIOCHEMISTRY IN MODERN MEDICINE

By J. J. R. MacLeod, M.D., LL.D., D.Sc., F.R.S., assisted by Roy G. Pearce, A. C. Redfield, N. B. Taylor, and J. M. D. Olmstead and by others. Sixth edition with 295 illustrations, including 9 plates in colors. Price \$11.00. C. V. Mosby Company, St. Louis.

This volume is the sixth revision and brings this

text entirely up-to-date. During the three years intervening between the publication of this and the last revision little of actual discovery has been added to Biochemistry. The author has felt, however, that there has been a steady increase in our general knowledge in this branch of science, an increase which justifies a complete revision of this text. The entire volume has been carefully revised.

This volume continues to be a most outstanding text in Medical Biochemistry.

THE SURGICAL CLINICS OF NORTH AMERICA

(Issued serially, one number every other month.) Volume 10. No. 4. (Southern Number, August, 1930.) 268 pages with 96 illustrations. Per clinic year (February, 1930, to December, 1930.) Paper, \$12.00; Cloth, \$16.00. Philadelphia and London.

This is an unusually interesting number covering a wide range of surgical subjects. The most outstanding articles are on the subject of arteriovenous

surgery. Dr. Barney Brooks of the Vanderbilt University Medical School reports a case of aneurysm of the axillary artery, with the technique of operation and the after results. Dr. Hubert A. Royster, Raleigh, North Carolina, presents the following: aneurysm of the brachial artery, reconstructive endo-aneurysmorrhaphy, huge aneurysm of the sciatic artery simulating a sarcoma of the buttock. Dr. W. Lowndes Peple, Richmond, Virginia, arteriovenous fistula.

F.W.F.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA

Third series, volume the fifty-first, Philadelphia. Printed for the College, 1929.

In this volume will be found all of the papers read before the college during the calendar year 1929, together with various transactions of the college.

Insight may be had into the type of papers presented by attention to the first six papers reported: The Annual Address of the President, by John H. Gibbon; Mycotic Aneurysms, by W. G. MacCullum; The Problem of Gastric Hyperacidity, by Martin E. Rehfuess; Postvaccinal Encephalitis, by Simon Flexner; Abscess of the Lung, by George P. Muller; a discussion of Morbidity and Mortality of Operation for Gall Stone Disease, by John B. Deaver.

The other papers reproduced, while prepared by men of less national repute perhaps, nevertheless maintain the same high standard. Considerable space is devoted in the transactions to the scientific section on ophthalmology, and the sections on otology and laryngology.

ALLERGIC DISEASES

Their Diagnosis and Treatment. By Ray M. Balyeat, M.A., M.D., F.A.C.P. Third edition, revised and enlarged. Philadelphia, F. A. Davis Company, Publishers, 1930.

This third edition of Dr. Balyeat's book discusses allergic diseases more completely than previous editions and the author has further expanded the volume by a more complete discussion of asthma, hay fever, urticaria, migraine and certain forms of eczema and mucous colitis. The viewpoint taken by the author in his discussion is noteworthy since the conditions treated are ones which, in the past, have proved very puzzling and altogether troublesome from the standpoint of treatment. In view, however, of the data obtained by the author the management of these cases can now be undertaken with the assurance of success. The only criticism of the volume is that while the title implies a discussion of both diagnosis and treatment, treatment is sadly neglected. The author assumes that his readers are entirely familiar with the technique involved in the testing of allergic patients as well as the form and technique of treatment required. There is a discussion of technique at only one point in the entire volume and the discussion at that point is so brief

and lacking in detail that it would be of little benefit to the inexperienced.

Since allergic diseases are so prevalent every physician, whether specialist or not, will derive great benefit from a more thorough understanding of these phenomena and for this reason Dr. Balyeat's book should receive very wide distribution.

MEDICAL INSURANCE EXAMINATION: MODERN METHODS AND RATING OF LIVES

J. Paterson MacLaren, M.A., B.Sc., M.B., C.M., and J.P. (Glasgow University and London Hospitals) late examiner for University of Cape of Good Hope and Chief Insurance Medical Officer. Second edition, greatly enlarged. Price, \$10.00. William Wood & Company, New York City.

This second edition of MacLaren's book is nearly twice the size of the first edition and represents a complete rewriting of the subjects. In the present volume greater space is devoted to such timely subjects as blood pressure, tuberculosis, heart diseases, glycosuria, albuminuria and malignant growths. The author has further increased the usefulness of the volume by including a greater discussion of the ratings required to adequately underwrite impaired risks of varying degree. Numerous statistics have been incorporated in the volume and the revisions have brought each subject entirely up to date. The index of subjects has received considerable attention and because of its thoroughness renders the volume highly suitable for reference purposes.

The volume will be of particular interest to those physicians passing upon insurance risks at the home office, to lay underwriters, to referees and examiners in the field. The volume is recommended without reservation.

THE MEDICAL CLINICS OF NORTH AMERICA

(Issued serially, one number every other month.) Volume 13. No. 6, and Index Volume. (Mayo Clinic Number, May, 1930.) Octavo of 275 pages with 55 illustrations. Per Clinic Year, July, 1929, to May, 1930. Paper, \$12.00; cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company, 1930.

This volume, presented by the staff members of the Mayo Clinic, contains a wealth of clinical experience in the form of formal clinics which will prove of immense value to the many physicians subscribing to this series.

Outstanding in this number are the clinics of Samuel F. Haines and Edwin J. Kepler, presenting the complication of Angina Pectoris in Exophthalmic Goiter; Harry L. Parker on Epidemic Encephalitis; William A. Plummer on Adenomatous Goiter Without Hyperthyroidism; and Albert M. Snell on Prolonged Obstructive Jaundice. A clinic by Lloyd H. Ziegler presents a number of unusual neurological conditions and diseases resulting from glandular

imbalance. Chronic Ulcerative Colitis and Inflammatory Diseases of the Rectum and Colon are ably discussed by Harry M. Weber and Philip W. Brown respectively. Various phases of infectious arthritis are discussed by members of the Division of Experimental Bacteriology, the Section on Neurology and the Section on Medicine. The volume is adequately illustrated and indexed.

INFANT NUTRITION

Williams McKim Marriott, B.S., M.D., Professor of Pediatrics, Washington University School of Medicine, Physician in Chief, St. Louis Children's Hospital, St. Louis. A textbook of infant feeding for students and practitioners of medicine, volume is illustrated. Price \$5.50. C. V. Mosby Company, St. Louis.

"Infant Nutrition," by W. McKim Marriott, is an unusually valuable contribution. Based upon sound clinical and laboratory experience, the book presents in a logical and practical manner all the newer knowledge that has so revolutionized infant feeding in recent years.

The early chapters deal with the growth and development of the normal child, and with its food requirements. Then follow chapters describing how these requirements may be met. Stress is laid upon the need for feeding an adequate amount of digestible food, correctly balanced, if uniform success is to be obtained. The half starved, poorly nourished infant should be less frequently seen than it is.

The difficulties encountered in infant feeding and their management are next taken up.

The importance of infection as a cause of interference with the normal progress of nutrition is properly stressed. The chapter on anhydremia, alkalosis, and acidosis is particularly valuable, for recognition of these states, and the institution of proper treatment should result in a lowering of the mortality rate in this group of very sick infants. In the final chapter the technique of blood transfusion, intraperitoneal injections, saline administration, dextrose administration, and other special procedures is given.

As the reviewer of this book I want to express my appreciation of it, and to heartily recommend it to anyone interested in the subject of infant nutrition.

L. F. H.

NORMAL FACTS IN DIAGNOSIS

By M. Coleman Harris, M.D., and Benjamin Finesilver, M.D., of the New York Homeopathic Medical College and Flower Hospital. With forty-two illustrations. Price, \$2.50. Publishers, F. A. Davis Company, Philadelphia, 1930.

It is the observation of most internists that the textbooks dealing with problems of physical diag-

nosis present for the most part abnormal findings. The authors of this small book have felt the need in their own experience of a guide presenting normal facts and findings in diagnosis.

This volume adequately presents these facts in a systematic fashion so that the student may readily acquire a suitable background for an appreciation of abnormal signs and symptoms. The book should be of assistance to every physician and invaluable to the medical student. The volume is well illustrated with suitable photographic reproductions and many drawings.

MEDICAL AND SURGICAL YEARBOOK

(Physicians Hospital of Plattsburgh.)
Comprising Wednesday Afternoon Invitation Lectures, Papers of the Cardiac Round Table, the First Beaumont Lecture, and Collected Papers by the Staff. The William H. Miner Foundation, Plattsburgh, N. Y., 1930.

This is the first volume of the papers presented before the Wednesday Afternoon Session and the Cardiac Round Table of the Physicians Hospital of Plattsburgh, published under the auspices of the William H. Miner Foundation. Conspicuous in this volume will be found addresses and appreciations of Dr. William Beaumont, who lived for a considerable period of time and conducted many of his physiological observations in Plattsburgh. In all there are twenty-two papers dealing with problems related to the heart and heart diseases and an additional fourteen papers presented by members of the staff dealing with various medical and surgical problems. The volume is fully indexed and well illustrated.

CERTIFIED MILK

Conference Proceedings of the American Association of Medical Milk Commissions and Certified Milk Producers' Association of America. Privately published in 1929.

The constitution of the American Association of Medical Milk Commissions states the purpose of the organization to be: "To federate and to bring into one compact association the medical milk commissions of the United States. . . . To fix chemical and bacteriological standards; to determine the scope of medical and veterinary inspections." This volume contains the addresses delivered before this body at its last conference and deals with problems suggested by the above quotations from the constitution.

Methods and standards for the producing of certified milk received detailed attention. Problems having to do with the vitamin content of milk, the bactericidal property of milk and the utilization of milk in normal and hospital diet are discussed. A paper dealing with the newer investigations in undulant fever, by Karl F. Meyer, of the University of California, is a very worth while resumé of the subject.

The JOURNAL

of the

Iowa State Medical Society

VOL. XX

DES MOINES, IOWA, NOVEMBER, 1930

No. 11

A MEDICAL CLINIC*

I. First Day

O. H. PERRY PEPPER, M. D., Philadelphia

The two patients whom I am to show you this morning are both interesting and to me very remarkable. They are both examples of a disease which is about to become extinct, or at least its later manifestations, which these patients present, are about to become extinct. The disease is primary pernicious anemia, and the complication which these two patients exhibit is posterolateral sclerosis or subacute combined degeneration of the cord.

I should like to present the first patient very briefly. Dr. Woods, who prepared these patients for me, gave me very carefully prepared notes on them, but I am going to give you merely the briefest abstract of their histories, trying to bring out the salient features as we know them today.

The patient is a woman fifty-nine years of age. Two years ago she began to have periods of weakness, but no other symptoms. Shortly after that she began to have intermittent attacks of sore mouth. By the fall of 1928, the weakness had become persistent.

During the winter of 1928-29, she was in bed six weeks because of weakness, and it was during that winter that anemia was first recognized. (It is rather instructive to observe the gait of the patient, and her incoordination as she is brought up onto the platform.)

Then, to recapitulate we have a history of two years of increasing weakness, sore mouth, in bed

for six weeks because of weakness and finally the discovery of the anemia. We have no data concerning the degree of the anemia.

About the same time, paresthesias of the feet, legs and hands appeared. The patient found it difficult or impossible to write or to walk. There was, however, no loss of weight. Then came another characteristic feature of this disease, a spontaneous remission, and during the summer of 1929 she was better in every way. As the old story always went, however, there was a return of symptoms, and by December, 1929, she was much worse again and had in addition some difficulty with the bladder sphincter. In February, 1930, she was admitted to the hospital, where certain added items of information were obtained. In the first place, all the evidence needed to make a diagnosis of posterolateral sclerosis was found. She had the subjective complaint of paresthesias. She had the loss of vibratory sense in the legs. She had the loss of sense of position; she could not tell which way her toe was being bent, which way her finger was being manipulated. She had a loss of knee jerks, Achilles' jerk and plantar reflexes, and she had the marked incoordination which you see in her gait today.

It was also found in the hospital that she had the other salient diagnostic finding of this disease, anacidity in the gastric content. The degree of anemia at that time was moderate; hemoglobin was 72 per cent, the red cell count 2,750,000, which gives a color index of well over one, characteristic of the disease, and a low white cell count 4,600, which is also a characteristic feature. The stained spread, we are told, was also typical.

There was no hesitancy on anybody's part at that time in making the diagnosis of primary pernicious anemia with cord changes.

The case was absolutely classical; weakness, glossitis, anemia, paresthesias, incoordination, and then the history of a remission, the finding of absence of hydrochloric acid, a high color index in the blood: a classical picture of Addisonian or pernicious anemia. What more might have been

**Editor's Note.—The two clinics by Dr. O. H. Perry Pepper which we are publishing in this Journal are reported exactly as Dr. Pepper gave them since we feel that the reader will enjoy to a greater degree the material reviewed if the personality of the speaker is reflected in the article.*

These clinics were presented on separate days during the last annual meeting of the State Society at Marshalltown.

elicited to confirm that diagnosis? In view of our interest in the influence of diet the patient was questioned concerning her dietary habits and she promptly spoke up and said she had eaten very little meat, but she denies that that was true prior to her illness. It is a history which we are getting more and more frequently from these patients. She believes that her low meat diet followed the appearance of other symptoms. I wonder, however, whether it had not been present for a longer time than she remembers. We all are so much in doubt about dates and things of that sort, that I take the liberty of suspecting she had eaten little meat for a long time.

You might ask for a greater degree of anemia than has been reported to you for the diagnosis of pernicious anemia, but it is not necessary at all. You might say, "Well, as a culminating crux of the situation here, before I will accept this diagnosis flatly, I want to know whether this patient will respond to modern liver treatment."

What are the facts about that in this patient? When the diagnosis was made in February of this year, the patient was immediately put upon liver, not only cooked liver but extract of liver, and later the newer preparation, Ventriculin. As a result of that treatment which has been going on since February, she has improved rather strikingly in certain ways.

Her hemoglobin on the thirteenth of his month was 80. Her red blood cells were 4,390,000, figures which give a color index below one. There is nothing in that blood count to give you any hint of the nature of the illness. I recently had an experience in my office with a patient who did what patients sometimes do, declined to give the doctor any information for fear it would influence him in his diagnosis. This patient came in having had a bout of pernicious anemia and having been treated with liver, with entire recovery from her anemia. She told none of the story of anemia, of the liver treatment, and when I failed to make a diagnosis of Addison's anemia, she said, "I thought that other doctor was making me eat a lot of liver." No hematologist could make the diagnosis of pernicious anemia from this patient's blood today. I hesitate to say that she walks better because she has not given you a very good exhibition, but she does walk better because she was absolutely helpless. "You could not have done this back in December?" She could not have done this three weeks ago, she says. Although she still has marked incoordination, she is very much better than she was, and what is much more spectacular, is to see her patellar reflex. The doctor in the hospital in which this patient was from February to March failed to obtain

any knee jerk. If that record is correct then all we can say is that her knee jerk has returned unto her. She says she didn't have any knee jerk. I think you can all see that even by using my stethoscope instead of the hammer which is so essential to a neurologist I can demonstrate a very exaggerated reflex. I have only been in town since yesterday and she and I have not been in collusion over this and we haven't practiced it very much. "Will you put your tongue out at them?" The tongue is not characteristic of the tongue of pernicious anemia, a type which we will no longer see if we treat the cases correctly.

This is a very spectacular picture. Let me be dogmatic about one or two statements because we must go on to other things. Such cord changes as this patient presents may antedate all appearance of anemia. We are told that this patient had anemia back in 1928. We don't know the figures. We don't care, because it wouldn't be necessary for us to find anemia. One may have the anemic cord change, so-called, without anemia, which is sometimes very confusing diagnostically. Secondly, one may find such cord changes in other than primary anemia. Only when the secondary anemia has been very profound and prolonged, does the finding of such a neurological picture with but trifling anemia make the diagnosis of the disease for you.

The third thing I want to mention is the fact that we are getting farther and farther away from any need of refinements in the blood study for diagnosis.

Her first blood count which I gave you was 72 per cent, with 2,750,000 red blood cells. It is now 80 per cent, with 4,390,000 red cells, and 9,650 white blood cells. In the first count there was nothing abnormal in the differential count. In the present count there is one thing not very strikingly present but worth just a word in passing, and that is there are 2 per cent eosinophils. The original count shows the low leukocyte count of characteristic untreated anemia. After liver treatment, not only do the red cells and the hemoglobin rise, but the white cell count rises and if the patient had been treated with cooked liver, or whole liver in any form, an eosinophilia is a very constant finding. Here it is very trifling. I don't know what proportion of extract versus cooked liver this patient has been eating, but do not get disturbed if a patient taking cooked liver should show an eosinophilia of 20 or 50 per cent. It sometimes upsets the diagnosis, makes you wonder, "Have I overlooked a parasitic infestation here? Is this something other than pernicious anemia? Could there be a tapeworm?" Stop the liver and the eosinophilia will disappear.

The details of treatment I want to leave until we have discussed the second patient.

This first patient is one who has performed a miracle for us in the recovery of her knee jerks. She is on the way to greater improvement, I think.

The second patient is seventy-nine years of age. She has had difficulty in walking for two or three years, weakness and uncertainty of gait. Since last September she has had paresthesias and numbness. She says her hands feel as though they were in sawdust or as if flies were walking over them, and she has become weaker and more uncertain in her gait.

In August, 1929 anemia was found, at which time the patient was worse, having been in bed for six months. She was put on liver diet and Ventriculin, and has improved. Now again in this patient, on careful examination, all the evidences necessary for a diagnosis of posterolateral sclerosis were found. There were the paresthesias, the incoordination, the loss of sense of position, the loss of vibratory sense, which, if you are going to make one single test is, I think, by far the best and also the absence of knee jerks.

She has been on the treatment for some time. Her blood count is now satisfactory and she is better and stronger than she was, and again I will demonstrate a miracle. Is the knee jerk present? These knee jerks are all present and accounted for, as they say. Far be it from me to question the recorded data in the absence of the knee jerks on these two patients on previous examinations. All I can do is to say they are there now.

Dr. Pepper: "You are stronger?"

Patient: "Yes."

Dr. Pepper: "Put your tongue out. Has it ever been sore?"

Patient: "My mouth never has been sore."

Dr. Pepper: Here you see the two patients, both without anemia and yet, undoubted cases of pernicious anemia with posterolateral sclerosis. Is it possible that that dread disease can show such a picture as this?

Only a short time ago, three years ago, in fact, my friend and classmate, Dr. John Musser addressed this society, and I should like to read you a paragraph from his address, published in the *IOWA STATE MEDICAL JOURNAL*. He was discussing the treatment of pernicious anemia, and having spent some pages on splenectomy and transfusion, he closed the discussion of the treatment: "There also is the new dietary regime, which has been introduced by Minot and Murphy, which offers great possibility for relief of symptoms. Minot has had excellent results, he writes me in a

personal communication, which have been well maintained. Although I have not had the opportunity of knowing about more than a few cases personally, yet in those cases the result has been most gratifying." That is only three years ago, and in that time our entire outlook, the prognosis of these cases, their life tenure and their comfort have been changed. It is hard to believe, time slips by so, that three years have seen that change.

What has been the story since Minot's initial announcement? First, we used whole liver, aiding it with other organs and meats, but putting our main confidence in whole liver. Patients objected to it, various ingenious methods of getting it into the patient in the form of ice cream and salad and soup and various foods were devised, but the patient began to recognize a little liver in a large amount of disguise. They objected strenuously. The price of liver rose and there were various tragedies imminent. Then the extracts began to come in and we have learned our lesson with the gradually more and more refined hepatic extracts. Now there are several different varieties on the market, the dry extracts and the liquid extracts, and lately further efforts at still greater refinement have been carried on. At Atlantic City ten days ago it was announced from Minot's laboratory that the chemists had analyzed the active extract so carefully that they knew practically everything which it wasn't, but they still couldn't tell us what it was chemically. They had it; they knew it contained a little nitrogen and that was about all they knew. But they now had a fraction and it seemed to be true that one-tenth of a gram given in a single dose would initiate a complete remission of the anemia of pernicious anemia. That will relieve our patients of all the discomfort of eating liver.

A second line of study was started when it was tried experimentally to see what would happen if foods which previously had been digested in the normal stomach were fed to a patient with pernicious anemia. Foods from which the patient would get no blood forming benefit, if digested in the normal human stomach for a while, then removed and introduced into the patient, would initiate a remission in the disease just as well as the liver. Then finally, the finding of an anti-anemic substance in the wall of the stomach has led to the putting out on the market of an extract of stomach wall which acts in the same way.

We now have these different measures for the relief of the disease. They all act somewhat the same. If you are watching your patient carefully, you first find the increase in the number

of young cells in the blood. That is a laboratory method requiring a certain special stain and a little more than usual technical ability, and the finding is so constant that it is no longer being done every day.

Then comes the rise in the red cells and hemoglobin. Those two things follow with great constancy the administration of a proper dose of any of these treatments. They are followed by a gain in strength, the cessation of the glossitis, the improvement in well-being, the return of appetite, and so forth.

Certain things are little, if any, influenced by the treatment. The anacidity continues unchanged. No amount of treatment restores hydrochloric acid to the stomach, and it is interesting to note that the absence of hydrochloric acid antedates the whole picture and that it often occurs in other members of the family. If you took these patients' families and studied their gastric contents, you would probably find a certain number of the family with no hydrochloric acid. Possibly that offers an opportunity for preventive medicine. Possibly we should do that in all families, and should treat those patients with hydrochloric acid and should watch their blood count to anticipate any such trouble in them.

As to the cord changes, it is difficult to state. The patients unanimously believe that they are improving because their strength improves so much that they are able to get on better even though their incoordination is still great. Sometimes you do get changes that make you feel that the treatment has really benefited the cord changes, but pessimistically speaking, the cord changes are such pathologically that one would scarcely anticipate any improvement in them. Except for scattered reports in the literature, the opinion is fairly unanimous that the cord changes do not markedly improve. Personally I have never seen cases of cord changes improve.

We no longer worry about local treatment of the mouth when there is glossitis. Give the patients such comfort as you can and assure them that as soon as the specific treatment has had time to act the mouth condition will clear up. Reassure them about weakness, about anemia, about all the symptoms that follow in the wake of the anemia, but do not promise your patients very much with regard to improvement in the cord changes. Tell them that prior to three years ago their chance of living was poor, their chance of health was negligible, and that now you can guarantee those two things and ask them to put up with the cord changes while not taking away from them the hope that those cord changes will improve somewhat.

The early recognition of pernicious anemia, either by the recognition of the anemia itself or the recognition of the glossitis or the recognition of the cord changes, ought to lead to a prompt use of one or the other of the specific treatments and the avoidance in the future of any such picture as this. We are doing the same thing in avoiding the cord changes and the nerve changes of diabetes mellitus, the so-called pseudotabes of diabetes, by treatment with insulin, and here we have an analogous situation. We should look on these patients now because we hope we will never see any more of them. We must show them to our students because we hope by the time they get into practice this disease will have lost its terror. To me these two patients are most instructive. I have enjoyed examining them, meeting them, and as far as my personal experience goes, it took a visit to Marshalltown, Iowa, for me to see two patients who had lost their knee jerks from anemic posterolateral sclerosis and who had recovered them. To me it is a most miraculous recovery. I hope that the gentleman who took the knee jerks and found them absent will rise and refute any intimation that I am making that he was wrong. I don't believe he was wrong; I think he was right, but I think it is miraculous that the knee jerks have returned. These ladies are both very kind to have come to this clinic and I hope they won't be depressed by what I have said, that I won't promise they are going to go on and get over their difficulties in walking, but we can promise that the disease will not shorten their days and there will be no return of the anemia as long as they persist in the use of the treatment. Don't stop the treatment. Don't be persuaded, "Now I am so well, my anemia is so well I won't keep it up," because as soon as you do you will have a return of symptoms. Thank you.

II. Second Day

I have had such a good time here in Marshalltown that I really feel it isn't fair for me to repay it by talking to you any more, but part of the pleasure that I have had has been the interesting medical cases I have seen here and the care with which they have been prepared, and I am going to show you two patients this morning who were as interesting to me as the two whom I presented yesterday morning. They are so interesting and unusual in some respects that they are rather to be shown and wondered at than to be used for teaching.

The first patient is a man now twenty-five. On February 8, four years ago, while in perfect health, he was suddenly taken with high fever,

103°. At the same time he developed aching over the body, especially in the neck. Two days later, on the 10th, soreness in both knee joints appeared and his physician noticed that his pulse was showing many extra systoles. I ask you to remember that in view of what later eventuates.

On the third day of his illness, a blood count revealed a leukocytosis of 23,000. Other joints became fugaciously involved, redness and swelling appeared, particularly of the left hand. The fever continued. The extra systoles continued. The physicians ventured a diagnosis of acute rheumatic fever which I think was unquestionably correct, but which I think it took a good deal of acumen to venture at that time, in view of the atypical picture. Blood cultures were negative.

On the sixth day of his illness, the 14th of February, a pericardial friction was heard. Cough and bloody sputum appeared on the 15th of the month, and for two or three days there was the entire picture of a lobar pneumonia. I don't want to get diverted from the history, but I don't want to leave this matter until later, so I am going to interpolate the remark that there are those who believe that there are rheumatic fever manifestations in the lung, a pneumonitis which may approach closely the picture of a lobar pneumonia. It may be that this patient, who had a violently acute case of rheumatic fever, did have a rheumatic pneumonia. There are many others who do not admit that possibility whatever. The matter is unsettled.

On the 19th, eleven days from the onset, he seemed better. The respiratory rapidity and difficulty which had come with the pneumonia lessened, and for a few hours he had a normal temperature and the physicians almost wondered whether he had not had a crisis in his illness.

An irregular fever soon returned, however, and for a number of more days, until the 25th of the month, seventeen days from the onset, he was still running an irregular septic fever up to 104° and down again. His leukocyte count taken in that interval was still high, 24,600. The pericardial friction increased in loudness, and while the pericardial friction was still present, the size of the cardiac dullness materially increased. On the 25th of the month, seventeen days from the onset, an x-ray picture showed an unequivocal picture of enormous pericardial effusion. At that time the signs at the left base of the lung were those of very marked compression of the lung, and there was bronchial breathing and dullness and whispered pectoriloquy at the base. Often such signs are mistakenly interpreted as being signs of consolidation or pneumonia. The gen-

tleman in charge of this case did not make that mistake. At the time of his pneumonia earlier in the disease, he did not have his large paricardial effusion.

The patient was distressed by this large effusion, which he could feel. The blood pressure was low. The pulse was more rapid. The general condition was worse.

A paracentesis of the pericardium was performed, the needle being introduced in this instance by the anterior approach. Fluid of a reddish brown, clear character, was obtained. Only 10 c.c. of fluid was removed. However, for some reason, immediate improvement or coincident improvement occurred. Within twelve hours the patient was much better. Within a week the effusion had absorbed and within about a month from the onset of his illness the fever was gone, his pulse was slow and he was entering upon his convalescence. His convalescence was very slow, constantly interrupted by spells of extra-systolic arrhythmia. That, you see, was from February 8 to the middle of March. From March to perhaps May, the convalescence proceeded. Only in the early summer were the physical signs of a valvular lesion discovered. At that time there was an aortic regurgitation.

Now, four years later, he expresses himself as being perfectly well. He is handling cream cans of no trifling weight, lifting some seventy-five of them onto a truck at one end of his route and off again at the other, without distress, and without any cardiac symptoms, and he feels that it is a very good job for him, that his heart does not handicap him in any way. His weight is 188. His temperature is normal. His blood pressure is that which one might anticipate with an aortic regurgitation, a low diastolic; there is a broad pulse pressure between 132 systolic and 48 diastolic.

There is a point here of interest. There is no doubt but that I have the apex impulse under my finger, further out I lose it. Here I unquestionably have it. Percussion confirms that enlargement. There is no hope of demonstrating that to you in this room. There is no necessity. There is a good deal of it there, but there is a very distinctly enlarged cardiac area. On auscultation one hears double aortic murmurs, the evidence of a double aortic lesion; the systolic murmur going to the neck, the diastolic heard best down the left border of the sternum, more blowing than the systolic. There is a systolic murmur at the mitral area. I can pick up no evidence of a mitral stenosis. The phenomena of aortic regurgitation are present. The pulse has been recorded recently as low as 50 to the minute. That

has not been true in the conditions under which I have examined him. Careful examination of the neck fails to reveal any greater number of auricular waves than carotid waves. The slow pulse might suggest a heart block, but other evidence is not there to confirm it. This patient believes he is in perfect condition.

This is an example of an extremely rapid case of acute rheumatic fever just as though all the developments and manifestations of the usual long case were run through rapidly in order to get the thing presented in a short space of time. The cardiac involvement in rheumatic fever should be the first point we should discuss in this case. It is so hard to remember that the carditis of rheumatic fever is a pancarditis. Many of us were taught medicine in the days when all the emphasis was on the valve involvement. Only in the last couple of decades has the interest been centered where it really belongs, on the muscle, and we still forget the pericardium. What are the evidences in this patient of involvement of the muscle in that attack of rheumatic fever? First, the extra systoles, the irritability and diseased condition of the whole muscle. Any part of it was ready to initiate a contraction. So we find as early as the fourth day of the disease in this patient, evidence of myocardial involvement. Shortly after that this patient presented the evidences of pericardial involvement, first the friction and then the fluid. We might interpolate a few remarks here. One is that the friction of pericarditis may be present coincidentally with a large pericardial effusion. The pericardial effusion pools in the lobulations of the pericardium at times, almost forming a cloverleaf. You cannot rule out pericardial effusion on the presence of a pericardial friction. There are two times when a pericardial effusion gives unusual distress. One is when a fairly small effusion has just appeared and causes pressure on the great veins before the pericardium has had time to dilate. The second is when a very large pericardial effusion has filled the pericardium beyond its ability to stretch further. Then occurs interference with the venous flow and marked symptoms of circulatory failure, low blood pressure and the picture which this patient probably presented. Aspiration in such cases, whether the effusion be in the small stage or in the large stage, is often life-saving, but usually only through the removal of a considerable amount of fluid. Here only 10 c.c. were removed, and this is one of the most interesting points to speculate about in this case, although I don't believe any one of us can give an answer. I certainly can't. Apparently coincident with the

paracentesis and the small removal of fluid, there was this marked improvement.

A second point which we should discuss in this patient is the fact that his family history contains no item of rheumatic fever. Usually it is a familial disease. Secondly, this patient has had no tonsillitis, no chorea, no growing pains. I questioned him as though he were accused of murder, but I couldn't get anything out of him, and it is just enough unusual to make us wonder whether there is some other infection which could have given this complete picture. I don't know of such infection. I think we ought to call this rheumatic fever, as those who were in charge of the case at that time did.

What about the present status? We have evidence, I have said, of myocardial involvement right from the start. We then got evidence of pericardial involvement, and in the summer four years ago, the evidence of endocardial involvement became obvious the triad making pancarditis. He was unfortunate enough to have involvement of both his mitral and his aortic valve. Four years later he presents a very definite enlargement of the heart. What are the causes of that enlargement, because they figure enormously in determining the prognosis of this case? Did he have a previous heart lesion which had already started his hypertrophy long before this illness? We haven't the slightest right to make that supposition. This enlargement must, we believe, have appeared in the past four years. Is this enlargement simply the hypertrophy incident to the valve lesions which he has? That is possible in view of his somewhat laborious occupation. Aortic regurgitation will lead to a considerable hypertrophy quite rapidly if the individual does manual laborious work.

A third possibility is pericardial adhesions. There is nothing that hypertrophies the heart more than the working of the myocardium against an encasing of adhesions of the pericardium. Often in patients in whom you find no valve lesion or little valve lesion, but a history of rheumatism in the past and a very much enlarged heart, you can safely assume the presence of an adherent pericarditis and it proves so to be. This man had a friction, he then had effusion, and he now has this big heart. I don't mean that the size of this area is due to thickened pericardium, which would be a small factor, but that the adherent pericardium has favored the hypertrophy. I suspect that this is an added handicap to his heart in addition to the valvular lesions.

What is the prognosis? He has been rid of focal infection. He has had no subsequent rheumatic manifestations. He is a healed case so far

as we understand such things. We are dealing with a mechanical end result. The prognosis, then, depends a good deal upon the demands made on that heart. He thinks that lifting fifty to one hundred seventy-five pound cream cans on and off a truck is an easy job. I have argued with him about it. I haven't gone out and tried it, but that isn't my idea of the ideal job for a patient with his heart, and I would strongly advise that someone leave him a million dollars and that he be able to live a quieter life.

The second patient offers an equally interesting story. She is twenty-three years of age. She has been coughing on and off since she was two months of age.

Her history starts with severe whooping cough at the age of two months. The cough persisted beyond the usual period, with exacerbation of cough at the time of measles at the age of nine months, and increasing amounts of sputum with the cough. Especially in winter did this cough and expectoration continue until the age of twelve. From then on things apparently have been a little bit worse.

She is one of a fairly large family, all of whom have been healthy except one brother, who had proved pulmonary tuberculosis. The exposure of the patient to her brother's infection during his illness is a little doubtful. Of course they were in the family together, but after his infection developed it seems as though there had been very little exposure. Because of her brother's infection she was very carefully examined at various times for evidences of tuberculosis. Many sputum examinations were made. At no time were tubercle bacilli found; at no time were the usual physical signs of pulmonary tuberculosis found. It is very gratifying to see a case where the possible intimations of the brother's disease were so carefully followed out and at the same time where, because of the brother's disease, it was not at once assumed hastily and unjustifiably that the patient's cough and expectoration were due to tuberculosis.

This becomes even more striking when in 1927 the patient developed a frank hemoptysis, bringing up at least a cupful of blood. Again she was examined, and sputum examined, which was still negative. She has continued fairly well, working, coughing every day, every morning hanging her head down over the bed and bringing up a half ounce of fairly objectionable sputum. The only physical signs have been some bubbling rales at the left base, a trifle of impairment there, and some little increase in the whispered breath sound.

In 1927 a film was taken shortly after the hemoptysis, which showed increased shadows at

the left base. The apices were clear. All the root trunks were a little increased, but the special trouble was at the left base. A diagnosis of bronchiectasis was made from that film. In order to prove that, a bronchoscope was passed, pus was found coming from the left lower lobe bronchus, lipiodol was introduced and in a second film you could see the clubbed ends of the dilated terminal bronchi down in the extreme left base. Since that time she has had other therapeutic instillations by bronchoscope into the lung, but the condition continues very much unchanged.

A very pretty lateral view of the same lipiodol instillation again showed the coral-like branching dilated terminal bronchi filled with the opaque material. When all the evidence is in, the case becomes perfectly simple, perfectly obvious; a case of bronchiectasis started by whooping cough. There are thousands of them in the country, and where are most of them? In tuberculosis sanatoriums. If they stay there long enough they get tuberculosis. Then they die of tuberculosis and at autopsy the tuberculosis is found and then the wisecracks shake their heads and say, "Yes, I said all along that patient had tuberculosis."

This girl was not diagnosed as tuberculous, although she had a tuberculous brother, but every effort was made to prove what the case was and the truth came out, and although she has been for a short rest cure in a tuberculosis sanatorium for thorough study, she has never been diagnosed as tuberculous. She has never had tuberculosis, and there is every reason to think she never will have tuberculosis.

What are the points for discussion in this case? First, the differential diagnosis between tuberculosis and bronchiectasis. What else must we think of? You can't live in the neighborhood of Dr. Chevalier Jackson without having learned to think of a foreign body in every case of chronic cough and expectoration. A suspicion of foreign body ought to be a perfectly automatic reaction to a story such as this. Here the bronchoscopist found no foreign body. The x-ray has shown no foreign body. The picture of this lung is not quite that of a foreign body, but a foreign body can be introduced as early as the age of two months. It can simulate bronchiectasis very closely. It may be non-opaque to x-ray. Other possibilities include syphilis and mycosis of the lung. I do not believe we often overlook syphilis of the lung or even mycosis, but bronchiectasis is more common than all of them.

There are other points for discussion: First the hemoptysis. Should the bronchoscopist say to us right away, "Now I have been calling this bronchiectasis but that hemoptysis puts a dif-

ferent picture on it?" Not at all. Hemoptysis occurs with bronchiectasis quite commonly; it occurs with pulmonary abscess quite commonly. It is not an argument against the diagnosis of bronchiectasis and it should not be allowed to swing the diagnosis over to tuberculosis.

Sinus infection is a very important subject in connection with bronchiectasis. Chevalier Jackson and Gabriel Tucker at the University Hospital where I work, have taught us always to think of sinus infection in connection with bronchiectasis. Often the sinus infection initiates the trouble in the lung. You have little hope of curing the bronchiectatic infection until you have cleared up any sinus infection which is present. This patient has had her tonsils out but she has a good deal of dropping down into her throat, and I should like to suggest that possibly a thorough sinus investigation might lead to the finding of some sinus trouble and treatment of that might in turn help to improve her bronchiectasis.

Finally, the question comes up in such a case as this, what about surgery? You may reply that we only know about the left base. That is true. I would not consider lobectomy here unless I had lipiodol put into the right lung to see what the status of affairs there is, but we must not assume bronchiectasis in the right lung because of those increased trunk shadows. You will always see some increase on the opposite side from a badly infected lobe, simply by spill-over and irritation. If it could be demonstrated that the right lower lobe here was good, that this bronchiectasis was entirely localized in the left lung; if as time went on it could not be thrown aside and she was condemned to this for life, then the question would come up as to whether pulmonary surgery should not be considered. I have a patient who eleven years ago had a complete left lower lobectomy by Lilienthal of New York, and I can't tell that she hasn't a left lower lobe except that her heart is over and she has a very large scar. I would not urge that right away. It is only when the patient gets desperate, gets tired of this performance, or where things seem to be getting worse, that it is advisable.

This patient takes her postural treatment quite well. Most patients do not up-end themselves sufficiently. They sort of gently lay their heads over the side of the bed and that is all. You have got to really put your head down to the floor and your feet well up to change the level in the lung very much.

Vaccine. If we find sinus infection here, I would have a vaccine made from that. The next time bronchoscopy is done, I would have cultures

taken from the deep part of the lungs and have vaccine made from that and try treatment with it.

I don't plan to examine the patient before you, but it is interesting how few physical signs there are here, and it is also interesting that she has absolutely no clubbing or curving of her nails.

THE DIAGNOSIS AND TREATMENT OF MYXEDEMA

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Myxedema is a comparatively rare constitutional disease which is caused by the decrease or absence of thyroxin from the thyroid gland. It is characterized by a lowered metabolic rate, a dryness of the skin, a non-pitting edema, an increase in weight, vague muscle and joint pains, and a very characteristic facial expression. It is not uncommonly called Gull's disease, hypothyroidism, cachexia strumipriva, and idiopathic and primary hypothyroidism.

Fagge¹ was the first to suggest the possibility of myxedema and he described some of the possible symptoms. Gull², however, described two cases before the Clinical Society in London on October 24, 1873. Ord³ suggested that the disease be called myxedema in 1878 because of the edema and mucin in the skin in these cases. Reverdin⁴ in 1882 reported the result obtained in a number of cases following complete extirpation of the thyroid gland. Kocher⁵ reported such a case in 1883 but was not aware of the similarity of myxedema and cachexia strumipriva until after Reverdin's paper in 1882. Murray⁶, in 1891, conceived the idea of treating these cases with a glycerine extract of thyroid, subcutaneously, and reported one successful case. Fox⁷ tried the oral administration about the same time and MacKenzie⁸ used the fresh thyroid gland in 1892. Osler⁹ reported ten cases in Baltimore covering a period of sixteen years and Plummer¹⁰ reported fifty-one cases over a period of four years. Sporadic cases have been reported from time to time in various sections of the country. The disease has no geographic limitations.

The true cause of the atrophic condition of the thyroid is not definitely known. We are cognizant of the fact that myxedema follows complete removal of the thyroid gland. There is no doubt but that infection plays a large role in the production of the atrophy of the thyroid because it is frequently found that the onset of the disease dates back to a time when the patient had a definite systemic infection without definite signs of a thyroiditis. Influenza seems to be the greatest offender. Thyroiditis, of course, precedes the atrophy of the gland. The portal of entry of

these infections is probably through the lymph-adenoid tissue of the naso-pharynx. Hertoghe¹¹ of Belgium believes that there is a family tendency toward atrophy of the gland.

Pathological study of the glands in definite cases of myxedema shows atrophy, an increase in the connective tissue, a decrease in the number of vesicles, and round cell infiltration.

Myxedema usually manifests itself very slowly, is more frequent in women than in men (a ratio of about five to one), and is usually observed in middle life. The patient generally complains of bone and muscle pains, with stiffness of the joints, and for this reason is usually treated for arthritis. There is a general slowing of all actions of the body both mental and physical. Drowsiness is a very pronounced symptom in the very low rate cases and frequently these patients will fall asleep during the day while at work and there will be great difficulty in arousing them. The skin is dry and very scaly and often the patient will state that he has noticed scales in his stockings upon removing them at night. The hair is dry and brittle. There is a non-pitting edema of the skin which is most pronounced in the legs. The puffiness under the eyes and the sallow color of the skin, together with the presence of albumin in the urine, frequently cause a diagnosis of nephritis to be made. Often a secondary anemia is present. The patients are unable to perspire, the hearing is impaired, the movements are slow and deliberate, and the organs of taste and smell become affected. The face assumes a very broad, coarse, and mask-like appearance and this symptom, above all others, is often responsible for the correct diagnosis of the disease. Emotional instability is often observed, a husky voice is quite characteristic, and there is an intolerance to cold. The Woltman reflex is diagnostic of the disease. This is evidenced by a rather rapid extensor motion of the foot when the Achilles tendon is tapped with a percussion hammer and by a very slow flexor motion to the normal position. This was first described by Woltman¹² several years ago.

In 1926 Lowenberg¹³ reported in detail a case of myxedema in which the gastrointestinal symptoms were the outstanding complaint. The patient had much gas, bloating, belching, nausea, vomiting and some diarrhea. These were all eventually controlled by thyroid therapy. This patient had had the symptoms of myxedema for nine years. The gastric acidity was about normal in this case. MacKenzie¹⁴ reported one case in which there was an absence of free hydrochloric acid.

The usual duration of myxedema before it is recognized and the proper treatment instituted is four years. The duration of the disease if the

condition is allowed to go untreated is about twenty years.

I do not believe that there is another clinical syndrome in medicine which is so generally overlooked and for which we can do so much as myxedema.

It has been my good fortune to have seen and observed about twelve cases of myxedema. Two of these I have seen and treated in Des Moines during the past two years and the others I had the privilege of following while at the Mayo Clinic in Rochester. Plummer states that only about one out of every ten cases which were diagnosed and treated at the Clinic had been properly diagnosed elsewhere.

Gardiner, Hill and Smith¹⁵ of London mention menorrhagia as a very common symptom of myxedema. In 1913 Sehr¹⁶ reported fifty-five cases of functional menorrhagia, thirty-eight of which were hypothyroid. Hertoghe¹⁷ in 1915 suggested that profuse menstruation of thyroid deficient women was due to infiltration of the uterine muscle mucosa with mucin. McCarrison¹⁸ in 1918 stated that menorrhagia was a sign of thyroid deficiency. Israel Bram¹⁹ in 1904 in his book on goiter summed up the exacting evidence and said that in thyroid deficiencies the menstruation was excessive and characterized by menorrhagia. He summed up the fifty-five cases which he had studied as follows: (1) Myxedema develops before the menopause, (2) menorrhagia is present in 78 per cent of the cases, (3) myxedema is a common sequelae of the artificial menopause when it is induced for menorrhagia without apparent local cause.

Haines²⁰ reported the case of a patient with symptoms of exophthalmic goiter who became myxedematous after the administration of Lugol's solution. When Lugol's was discontinued the symptoms of exophthalmic goiter returned. The symptoms of both exophthalmic goiter and myxedema were controlled only by the administration of thyroid and Lugol's. Osler²¹ speaks of myxedema and exophthalmic goiter being present in the same patient. Plummer and Haines²² have reported a case of myxedema with a rate of minus twenty-five which after being treated with thyroid orally began to show signs of hyperthyroidism. This persisted for nine months after the drug was stopped and was controlled only after the surgical removal of a large adenoma. Did the administration of thyroid cause a small adenoma to hyperfunction? A gland that has stopped functioning because of the degenerative processes that have taken place would probably not begin to function as the result of thyroid stimulation. Plummer explains this apparent

paradoxical condition of exophthalmic goiter and myxedema on the theory that one may have an exophthalmic goiter without being hyperthyroid. Lugol's solution controls the exophthalmic goiter symptoms apparently by changing the impure product which is thrown out but seems to have no effect on the normal secretion whether it be present in large or small amounts or absent.

A surgeon who performs much thyroid surgery will discover sooner or later a case in which too much of the gland has been removed or a case in which infection has destroyed the remaining portion of the gland. Such cases of postoperative myxedema are easily recognized and respond well to thyroid therapy.

One must bear myxedema in mind constantly when dealing with so-called chronic nephritis, arthritis and pernicious anemia, especially when the symptoms are somewhat atypical, because most of the cases of myxedema are diagnosed as one of these diseases. I have seen one case in which a diagnosis of carcinoma of the stomach was made because of the patient's weakness, anemia and vague gastrointestinal symptoms. Although these patients with myxedema do have a color suggestive of nephritis, puffiness under the eyes, edema of the extremities, albumin in the urine and a low phenolsulphophthalein reaction chronic nephritis can readily be ruled out if the examining physician will note that the edema is non-pitting, that there are no casts in the urine, that the specific gravity of the urine is not fixed and that the patient has other symptoms which cannot be explained on the basis of nephritis. I have mentioned these latter symptoms above. If one is in doubt about the diagnosis and is not in a position to run metabolism tests, the patient should be given thyroid in amounts which I will describe later. If the patient is myxedematous the response will be nothing short of miraculous. I might add that there are a small number of cases of true nephrosis which respond well to thyroid administration. In this instance the diagnosis is not difficult because of the absence of the diagnostic signs and symptoms of myxedema.

There is little excuse for confusing myxedema with pernicious anemia although it is a common error. The blood picture is not that of pernicious anemia and I am sure that such a diagnosis is made from the patient's general appearance and because myxedema is not kept in mind. Lissner²³ and others have reported cases in which myxedema and pernicious anemia were co-existent.

After studying the blood picture in twenty-three cases of myxedema Stone²⁴ concluded that secondary anemia was present in fifty per cent. The blood changes are chiefly concerned with the

red blood cells and the hemoglobin. The blood picture was not that of pernicious anemia although the color index in some cases was one plus. The leucocyte count was normal.

Sturgis²⁵ of Boston comments on the number of cases that are referred to the hospital with a provisional diagnosis of arteriosclerosis when myxedema is the outstanding clinical condition. Fahr²⁶ reported six cases of heart failure associated with myxedema which responded well to thyroid therapy. Zondike²⁷ also reported six such cases of heart failure which responded to thyroid therapy. Assmann²⁸ reported one case of heart failure associated with myxedema which did not respond to digitalis therapy but which did respond to thyroid medication. Meissner²⁹ and Curschmann^{29A} have each reported a similar case. Haines and Willius,³⁰ however, after a study of 162 cases of high grade myxedema concluded that none of the cases of heart failure and none of the cases of organic cardiovascular disease could be attributed justly to the myxedema. I have not observed heart failure in any of the cases that I have studied.

Electrocardiographic studies of these cases not infrequently show a negative T wave in lead one which I believe is an evidence of heart muscle damage. Paul White³¹ of Boston summarized his findings in fourteen cases of myxedema with electrocardiographic studies before and after treatment. They all showed a consistently low "T" wave in lead two before treatment with an increase in positive amplitude after treatment. Fahr³² concludes that heart failure not infrequently occurs with myxedema and that it is characterized by the fact that it responds to thyroid extract alone.

Wilder's³³ studies of diabetic patients with myxedema and exophthalmic goiter caused him to conclude that myxedema patients have a greater sugar tolerance.

Krantz and Means³⁴ of Boston reported six cases of pigmentation of the skin in myxedema which cleared up rapidly under thyroid medication. The pigmentation occurred simultaneously with the disease, involved the exposed surfaces, and resembled Addison's pigmentation.

Sturgis³⁵ reported two cases of myxedema which were complicated by angina pectoris. It is interesting to note that about fifty per cent of the patients with myxedema show definite and extensive athroma of the aorta and an endarteritis of the smaller vessels of the body.

Novak³⁶ made an interesting observation in his study of hyperesthetic rhinitis. He is of the opinion that it is due to a localized myxedema of the nasal mucous membrane. A large per cent of

his patients ran a low metabolic rate and responded well to thyroid medication.

Childhood myxedema is not uncommon. It is the result of a thyroiditis which often follows typhoid fever, measles, influenza, tuberculosis, lues and so forth. The thyroid gland may be atrophied or goitrous. Osler³⁷ reported a series of sixty cases in which there were seven with goitrous glands. The diagnosis is not difficult and the prognosis fairly good if treatment is started early.

Pain usually brings the patient to the doctor. In myxedema the chief complaint is frequently that of pain and stiffness in the joints and muscles or rheumatism. Not infrequently these patients have had all possible foci of infection removed but without obtaining relief. It is obvious that patients who have been treated in this manner have not had the advantage of a very thorough examination.

The treatment of myxedema is comparatively simple and absolutely specific. The two methods in use today are the intravenous administration of thyroxin and the oral use of fresh dessicated thyroid. One gram of the fresh dessicated thyroid is equivalent to one milligram of thyroxin. In treating myxedematous patients it should be our aim to first establish a basal rate of from plus one to plus five and then to establish the necessary dosage of the drug to maintain the metabolic rate at the desired point. I believe that the best results are obtained by starting the patient with a large dose of thyroxin intravenously, two to three milligrams, or thirty to forty grains of dessicated thyroid orally. This can be given in one dose or in divided doses over a period of a few hours. Sturgis sounds a note of warning when he says that there is grave danger to the heart in administering large doses of thyroid extract in cases of myxedema because of the excessive load that is thrown on the heart due to the sudden increase in metabolism. I believe that he is over-cautious about this although we do see cases in which substernal pain follows the administration of the drug. However, I am not aware of any more serious results. About twelve hours after the initial dose of the drug is given by mouth a rather severe general reaction occurs. The patient usually complains of a severe headache, bone pains, muscle soreness, nausea, vomiting and anorexia. This reaction usually lasts for from eighteen to twenty-four hours. I recall having seen a high-grade myxedematous patient whose condition had been properly diagnosed elsewhere by a physician who had started the right treatment but who, because of the initial reaction,

decided that he was mistaken in the diagnosis and did not continue the thyroid medication.

About three days after the first dose of thyroxin or dessicated thyroid, a second dose of about the same amount should be administered. This dose is not as a rule followed by any reaction. A close check should be made of the urine and the blood urea after the initial dose because it would not be unlikely to see a very high urea with symptoms of uremia. As a rule, however, the blood urea increases but not to an alarming degree. The metabolism should be checked after the first and second doses and frequently thereafter. By the end of the third week, or perhaps before, the patient should be running a normal rate of about plus one to plus five. It generally takes from two to four grains a day to maintain the normal rate but this dosage can only be determined by following the patient's course for some time and by checking the metabolic rate frequently. These patients should be told that in all probability they will be required to take thyroid for the rest of their lives but this is not a severe sentence inasmuch as the drug has no ill effects, is not expensive, and cures a condition which is incompatible with life.

Gardiner and Hill³⁸ of London start with one-fourth of a grain of the dessicated thyroid daily, increasing to one grain twice daily. They are of the opinion that the pulse rate runs parallel with the metabolism. I am convinced that it is a waste of time to start with such small doses and that it is unnecessary for the patient's protection.

Cabot³⁹ reports a case of myxedema with a four year history. The diagnosis was made post-mortem. The pathological diagnosis was that of an atrophic thyroid which weighed six grams, the normal weight being from twenty to thirty grams. It consisted mostly of scar tissue with very little parenchyma.

CONCLUSIONS

(1) Myxedema while not a common disease is not as rare as one has been led to believe. Means⁴⁰ of Boston in a review of 507,000 cases admitted to the hospital found 113 cases of myxedema.

(2) The diagnosis can be made easily if one will remember the following symptoms—(a) the characteristic mask-like facies, (b) the dry skin, (c) the puffiness under the eyes, (d) the joint and muscle stiffness and pain, and (e) the lowered metabolic rate.

(3) The treatment is absolutely specific and the results are most remarkable. It consists of the intravenous administration of thyroxin or the oral use of fresh dessicated thyroid. I believe that

massive doses such as I have described can be safely administered.

(4) We, of the medical profession, should know the few diseases—and they are few—for which we have a specific treatment.

CASE REPORTS

Case No. 1—G. P., a male, aged twenty-seven, consulted me on January 25, 1927. His family history was not significant. His past history is of interest only because of his having had a mild case of influenza in 1921. He complained chiefly of pain in the joints. He stated that he had not felt well since the attack of influenza. His legs seemed weak and stiff and he lacked the usual amount of "pep." He felt sleepy most of the time and his movements were slower. He had difficulty carrying on his work. As time went on he began to complain of pain in his muscles and joints with much stiffness. His skin became very dry and it was impossible for him to perspire. He would often take a hot bath, a hot drink, and wrap up in several warm blankets in an attempt to perspire but not a drop would come. He began to gain weight, developed puffiness under his eyes, and his color became poor. The weakness in his arms and legs became more marked. The pains were almost unbearable, especially at night.

About one year after the onset of his trouble he began a quest for relief. He had his tonsils removed and then a few teeth. He consulted bone specialists because of his feet but without getting relief. He was given various diets to follow and medicine of one kind or another. The last doctor whom he had consulted told him that he had nephritis and albumin in the urine. When he reported to me he was complaining bitterly of his leg and muscle pains.

Physical examination showed him to be 5 ft. 6 in. in height, present weight 150 pounds, normal weight 135 pounds, pulse 72, temperature normal. His facies was characteristic of myxedema. The puffiness under the eyes was marked and his color was poor. His skin was dry and glossy. The pupils were normal. The face was mask-like, the lips were thick, and the nose broad and more or less flattened. He moved with a characteristic slowness and it was not unusual to ask him the same question twice before getting an answer. His voice was husky. The heart and lungs were normal as well as the abdomen and rectum. He had a positive Woltman reflex. A blood count showed the hemoglobin to be 85 per cent with a leucocyte count of 8,500. A urinalysis was negative as was a blood Wassermann. An x-ray examination of the chest was negative. His metabolic rate was minus twenty-four.

A diagnosis of myxedema was made and the patient was sent to the hospital with the promise of absolute relief. He was skeptical but assented to treatment. He was given thirty grains of desiccated thyroid on the first day and after his reaction which consisted of a severe headache, loss of appetite and exaggerated bone and muscle pains had subsided the

dosage was repeated. There was no reaction following this second dosage but the patient showed no improvement for at least ten days. His metabolic rate at the end of the first week of treatment was minus eighteen. He was then given two grains of desiccated thyroid three times a day and at the end of two weeks his metabolic rate was minus six. At the end of the second week he was feeling much better, his skin was moist, his voice higher pitched and he had no pains or stiffness in the joints or muscles. Weakness, however, was very noticeable and he had lost ten pounds in weight. He was dismissed from the hospital after two weeks and was instructed to take two grains of desiccated thyroid daily. He continued to improve in every way and when he returned home even his close friends were amazed at the change in his facial expression. He returned two weeks later for a metabolism test and his rate was plus six. He was advised to continue the same dosage of thyroid daily. He returned for a check-up a few months later and was a little keyed-up. At that time his metabolic rate was plus twenty. I decreased the dosage of thyroid in half, that is to one grain daily, and since that time he has been running a normal rate and has enjoyed excellent health.

Case No. 2—L. P., a female, aged thirty-four, first consulted me on January 3, 1929. Her family history was not significant. She had been married for seven years and has twin boys three years of age. Her past history was negative. She complained chiefly of being run down and constipated and said that she had not felt well since her twins were born three years ago. She had had an almost constant backache for three years, puffiness under the eyes, a husky voice, and much nervousness. Her color was poor, she had no "pep," and tired very easily. She had been told that she had albumin in the urine and had been treated for kidney trouble. Just prior to the time she consulted me she had been in the hospital for eighteen days on a low salt-low protein diet for nephritis. At the end of her stay in the hospital she was no better and much discouraged for she felt that she could not continue in that condition.

Physical examination showed her to weigh 126 pounds, her normal weight being from 125 to 130 pounds. She was fairly well nourished but had a sallow complexion and very dry skin. There was marked puffiness under each eye. Her systolic blood pressure was 110, diastolic 80, pulse 72, temperature normal. The heart and lungs were negative and nothing abnormal could be found in the abdomen, rectum or pelvis. She had a positive Woltman reflex. Her voice was husky and her face somewhat mask-like.

Urinalysis showed a specific gravity of 1010 to 1030, and a moderate trace of albumin was present. The hemoglobin was 60 per cent and the leucocyte count 7,200. A blood Wassermann was negative. A chest ray showed nothing of significance. Her metabolic rate was minus forty-three.

A diagnosis of myxedema was made and the patient sent to the hospital for treatment. She was

given thirty-five grains of desiccated thyroid the first day. This was followed by a rather severe backache and headache. After twenty-four hours this reaction subsided and she was given thirty grains of thyroid. She remained in the hospital for twelve days and at the end of the eleventh day her rate was minus four. She had lost about ten pounds in weight and was extremely weak. I discontinued the thyroid for one week and when the patient returned to the office (after about twelve days in the hospital and a week at home) she was still weak but had lost the puffs under her eyes, the skin had peeled, she had begun to perspire and her backache had disappeared. She was given two grains of desiccated thyroid daily and at the end of another week she was better except for bleeding and painful hemorrhoids. A week later she was much better and stronger. Practically every one of her symptoms, including the albuminuria, had disappeared. Her dosage was changed to one grain daily for a week and then raised to two grains daily. She has continued with this latter dosage for four months and a few days ago her metabolic rate was plus three. She is active and in excellent health.

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PROBLEMS IN THE CONTROL OF UNDULANT FEVER*

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Before mentioning a number of problems in the control of undulant fever, it might not be out of place to review briefly the symptoms and findings in a few typical cases of this disease. This will bring before us the several means of transmission and entrance into the human body of the organism which causes undulant fever.

Patient 1. Mr. L., a farmer living in the north-eastern part of the state, in what is called the "Switzerland of Iowa," took sick in June, 1929, with chills, fever to 102° and severe night sweats. Loss of appetite, moderate weakness, and a cough were associated with this illness. This farmer had ten cows and two hogs. He was accustomed to using milk and cream only in coffee or on cereals. The family used butter from a local creamery. The blood serum of this patient had given a positive agglutination test for undulant fever. A blood culture sent by the family physician to the laboratories of the State Department of Health yielded the variety abortus of *Brucella melitensis*, the organism of undulant fever. Blood specimens taken in duplicate from the ten cows and two hogs by a veterinarian were sent to Ames

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and Iowa City. The serum of five of the cows gave a positive reaction for contagious abortion; a sixth specimen was doubtful, the remaining four showing no evidence of infection. The serum of the two hogs indicated their freedom from this disease. Cream samples from four of the reacting cows were forwarded by the patient to Iowa City, and small portions inoculated into the groins of eight guinea pigs. In a little more than a month the blood serum of six of the eight guinea pigs, representing the cream from these four cows, gave positive agglutination tests, just as had the blood serum of the cows and that of this patient with undulant fever. In addition the bovine type of organism, apparently identical in the laboratory tests with that isolated from the patient's blood, was recovered from the cream following this infection in guinea pigs.

Patient 2. Dr. M., a physician and practitioner in one of the larger cities in Iowa, developed a feeling of impending illness in March, 1929. In addition to fever, chills, drenching sweats, and poor appetite with associated loss of weight and weakness, there were general aching, nervousness, and some apprehension.

An ardent advocate of milk as the ideal food, this patient had for years urged members of his family and of his clientele to drink more milk, but others as he expressed it drank in a "desultory manner." He had, himself, for a period of seven or eight years, averaged more than a quart daily of raw milk, rich in cream. He was accustomed to drinking three glasses nightly before retiring.

The milk used by this patient came from a distributing plant a block away, one of a half dozen similar stations in the city. This particular distributing plant supplied about 500 customers, receiving from 10 to 40 gallons of milk daily from nine different dairies. It is obvious that the problem of tracing this patient's infection to its source is more complicated than in the previous case, and that without well organized municipal and county health departments, it cannot conveniently be done. The physician-patient mentioned, had had no contact whatsoever with livestock.

Patient 3. Mr. S., a robust, powerfully built farmer, under 40, living in southeastern Iowa, was overtaken early in 1929 with sickness characterized by chills, fever, profuse sweats, marked weakness, and loss of weight. The agglutination test was positive for undulant fever.

This patient had two cows. He drank very little milk. Twenty among twenty-one of his sows had lost their litters, and he had handled and cared for the animals at this time. Blood specimens taken from these hogs pointed definitely to contagious abortion; those of the two cows were negative. A

very minute and extremely characteristic bacterial form multiplied in the blood culture of this patient following prolonged incubation, and was demonstrated as being *Brucella melitensis*, variety suis, the cause of undulant fever.

Patient 4. W. P., colored, an employee of an Iowa packing plant, took sick in July, 1929, with symptoms resembling very closely those mentioned in the first three patients. He recovered and felt quite well for several months, but suffered another attack with like symptoms in December. The suis type of organism appeared in a blood culture taken by the attending physician.

This patient drank a small amount of milk, for the most part pasteurized. His work was on the hog killing floor and consisted in pushing through a drain or opening in the floor, condemned parts and intestines. Frequently the door of the drain became clogged and it would be necessary for him to reach down and with his hands lift up the door and clear the obstruction. He had cut his finger a number of weeks before the onset of his illness, and the wound was slow in healing.

MEANS OF TRANSMISSION OF UNDULANT FEVER

A study of fairly complete data on more than 350 undulant fever cases occurring in Iowa between December, 1926, and the early months of 1930, leads to the conclusion that there are in the main, two means of transmission of this disease, ingestion of raw dairy products and direct contact with infected animals or their tissues, the means of entrance into the human body being the mouth and the skin. Infection in the first two patients described resulted in all probability from the use of raw dairy products, in the case of the third patient, the farmer, from contact with living infected hogs, and in the packing house worker, from contact with fresh tissues of infected carcasses on the killing floor.

FACTORS DETERMINING INFECTION

It is doubtless true of undulant fever as of diphtheria and other infectious diseases, that infection is dependent upon certain types of exposure, the dosage and virulence of the organism and individual susceptibility.

INFECTION FROM RAW DAIRY PRODUCTS

Special conditions operate to determine infection through these channels. There must be infection in cows, such that organisms are discharged from the udder. The hazard of human infection seems to be greatest where families are constantly using the milk from but one or several infected animals. In one family in the Iowa series of cases, all the members, father, mother and six

children varying in age from 2 to 8, had symptoms or definite attacks of undulant fever. Two of the 12 cows had given positive reactions for contagious abortion. In two other instances where a patient had undulant fever, there was but one cow, the blood of which gave a positive agglutination test and the cream of which was demonstrated by passage through guinea pigs as harboring organisms of the variety abortus.

The conditions just described, may obtain on the farm or in the smaller towns. Conditions usually differ greatly in the larger cities, organisms of the *Brucella* group being fewer in number in milk and cream, due to the dilution factor. The hazard is apparently greater here for those persons who, like the physician above mentioned, drink large amounts of raw milk and cream. Now and then the facts indicate that a patient used an increased amount of milk or cream to gain weight, or was on a diet for the treatment of another condition, and undulant fever was superimposed. One cannot escape the impression in reviewing the occupations of many of the urban patients, such as "lawyer," "merchant," "merchant's wife," "merchant's daughter," "salesman," "salesman's wife," "physician," "physician's son," "veterinarian's wife," "minister," "teacher," "nurse," "postmaster,"—to mention but a small number—that not infrequently it is those who have access to more than the average amount of raw dairy products who are prone to acquire this disease.

In a recent study of a group of 138 people who freely use milk and cream from known infected cows, the blood serum in five of these individuals was positive for undulant fever in diagnostic dilutions, and *Brucella melitensis*, variety abortus, was isolated from a blood culture in one case. Cream from 7 out of 8 of these infected cows caused infection in guinea pigs, with enlargement of spleen, liver and lymph glands, *Brucella* organisms being recovered from these tissues. Further evidence of this type is accumulating week by week.

In contrast to the above findings, Carpenter and King¹ report a total absence of any evidence of *Brucella* agglutinins among 690 people using carefully pasteurized milk in Massachusetts. In a series of 480 negative Wassermann sera in Iowa, 56 per cent showed no agglutination, while 44 per cent showed partial or complete agglutination in low titers, of *Brucella melitensis*. It is hoped that information now being gathered with the aid of physicians, will throw light on the source of these agglutinins, and their significance.

Carpenter and Boak² determined that *Brucella melitensis* organisms artificially inoculated into butter remained viable for from 32 to 142 days. In

a number of the Iowa cases, epidemiological evidence incriminates home or country churned butter as a probable source of undulant fever infection.

INFECTION FROM CONTACT

The data in the series of undulant fever cases in Iowa indicate that about one-half are due to direct contact with infected animals or their fresh tissues, organs, and waste products as exemplified in packing houses.

SPECIAL TYPES OF CONTACT

Farmers and livestock dealers have innumerable types of direct and indirect contact with livestock. Since comparatively few acquire an attack of undulant fever, it is felt that casual contacts with animals are not significant. Certain conditions and special types of contact apparently determine infection. Infectious abortion must exist in cows or hogs, although this infection may not be apparent until agglutination tests are performed. Among special types of direct contact might be classed such procedures as the handling of newborn pigs, holding struggling animals as in vaccinating, castrating, ringing, medicating, loading and unloading of hogs for market, and butchering of hogs. Not infrequently farmers will themselves remove a placenta from a cow. These types of direct contact are epidemiologically of greater significance. It is usually impossible, however, to determine the exact date and circumstances of the exposure. Hog contact entails a greater hazard than cattle contact.

VETERINARIANS AND CATTLE CONTACT

Veterinarians have more direct contact with cows than any other group of individuals. They have been remarkably free from undulant fever. Do they develop an immunity as a result of repeated exposure to the less virulent bovine type of variety abortus? Do farmers frequently acquire undulant fever following direct contact with infected cows? Kristensen and Holm³ recently reported findings in 500 cases of undulant fever in Denmark, all being due to the bovine type of organism, and conclude that contact is an important factor in leading to infection. Veterinarians in Denmark have likewise been entirely free from manifest disease. Serum specimens taken January 14 and 15, 1930, from 120 Iowa veterinarians show definite evidence of exposure by contact, as compared with sera from other individuals of the population (negative Wassermann sera), the ratio being 2:1 in the 1 to 5 dilution, 3:1 in the 1 to 10 dilution, 6:1 in the 1 to 20 dilution and 8:1 in the 1 to 40 dilution.

PACKING HOUSE WORKERS

The relatively greater significance of direct contact with fresh tissues and waste products of hogs is shown in packing house workers who because of intimacy of exposure to virulent porcine organisms and in part because of wound infection, show far more evidence of latent as well as active undulant fever infection than any other group.⁴

EPIDEMIOLOGICAL INVESTIGATION OF UNDULANT FEVER CASES

The four cases mentioned in the beginning typify milk-borne infection on the farm, and in town or city, and contact infection on the farm and in the packing house. Every case however, represents varying and new points of interest, and must be studied individually as regards the probable source of infection. Information is sought as to the amount used of milk, cream, butter and cheese, their source and whether raw or pasteurized. Urban patients have in nearly all cases, no direct contact. On the farm inquiry is made regarding special types of direct contact, particularly in males. Statements relative to abortion in cows and hogs are elicited, and consent is obtained from the farmer or dairyman concerned, his signature on a request form indicating his desire to have animals tested for evidence of contagious abortion. A highly satisfactory and effective arrangement has existed between the State Health Department and U. S. Public Health Service on the one hand, and the Bureau of Animal Industry on the other. All requests for livestock examination are forwarded to Dr. Peter Malcolm, head of the Iowa Bureau of Animal Industry, who authorizes deputy state veterinarians to procure blood specimens in duplicate from cows and hogs related to undulant fever cases. Agglutination tests are performed under the direction of Dr. Charles Murray, Professor of Veterinary Investigation at Ames, and at Iowa City, and these results represent a chief factor in establishing the probable source of infection. Wherever there are cows and hogs, hogs and cows must both be examined in order to make the evidence complete. Cream specimens are later obtained from positive cows, injected into guinea pigs and *Brucella* organisms isolated from those developing infection. In undulant fever as in no other disease, the veterinary and human medical professions work hand in hand. Throughout this period of study of undulant fever in Iowa, the investigators have looked to the physicians for the forwarding of blood specimens, blood cultures, clinical notes on patients, consultations and personal visits with them to the patients' homes.

Recently there has been more dependence than ever upon the interest and collaboration of the physicians in obtaining data relative to the patients, and signatures of farmers and dairymen requesting livestock examination.

CONCLUSIONS

1. The control of undulant fever is closely related to the eradication of infectious abortion from cattle and hogs, which is primarily a problem of the veterinary medical profession.

2. Transmission of undulant fever through milk, cream, and butter can be largely prevented on the farm and in towns and cities by agglutination tests to detect infection in farm and dairy cows, and by proper pasteurization in towns and cities of all dairy products. Undulant fever is only another condition added to the already formidable list of diseases transmitted through raw dairy products.

3. There is a need for health education to inform all groups concerned as to the means of transmission of undulant fever.

In regard to those who are particularly exposed by contact, it is felt that certain forms of direct contact are unnecessary and avoidable. Effective precautions might be taken when direct contact is unavoidable, and during periods when wounds are healing, in order to reduce to a minimum the hazard of exposure to infected animals or their tissues.

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IOWA'S PERMISSIVE COUNTY UNIT HEALTH LAW.*

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State Commissioner of Health.

The Forty-third General Assembly of Iowa gave us a law granting permission, or making it a legal possibility for any county board of supervisors to appropriate funds for a county health unit.

In the political organization of our state government the township or municipality constituted the unit for all things governmental.

In Iowa, health activities were charged to the township unit of organization, and upon the township trustees and later the city councils, evolved the duty of administration.

*Read before the Iowa Public Health Conference held in Des Moines, April 3 and 4, 1930.

Through these bodies all expenditures and activities relating to public health were directed and it was found in 1925, that the county had no legal right to appropriate funds for county-wide health work, since such function was delegated wholly to townships and municipalities. Prior to 1925 there had been two county health units organized in Iowa but both were discontinued on account of this legal opinion.

The Iowa county unit health law delegates to the county board of supervisors the legal right or privilege, "by their own resolution, or by mutual agreement with any local board or boards of health of their county" to adopt the county health unit plan.

"When the county health unit plan is adopted a county board of health shall be appointed by the county board of supervisors to guide and direct all public health activities within the county."

The county board of health shall consist of not more than eleven members, three of whom shall be members of the county medical society. The others may include representatives of local boards of health or representatives from boards of education or any other organization interested in public health activities.

"All financial expenditures shall be approved by the board of supervisors. The county board of health shall serve as such without pay."

The State Commissioner of Health is charged with the two following duties:

1. To assist in the investigation of all public health activities carried on in the county and advise the county board of health and the county board of supervisors regarding the coordination and correlation of same.

2. The State Department must adopt rules of procedure for the organization of the county board of health and also specify its duties.

Following are the rules for organization of county health boards and also the specified duties of the county board of health.

RULES FOR THE ORGANIZATION OF COUNTY HEALTH BOARDS

(See Section 2, County Health Law.)

1. A temporary chairman and secretary shall be nominated. These officers should serve until the next succeeding regular or called or adjourned meeting. The temporary chairman may appoint any committee or committees necessary to carry on any temporary business coming before the board.

2. Permanent organization shall be made during the second meeting of the board. The permanent organization should consist of president,

secretary and any other official necessary to transact any and all business coming before the board.

3. The order of business should be transacted according to the usual manner and custom of similar organizations.

4. Regular meetings should be held monthly and more often if deemed necessary. Written notice should be sent all members preceding the regular or called meeting.

DUTIES OF THE COUNTY BOARD OF HEALTH

(See Section 3, County Health Law.)

1. To evaluate all the public health work being done in their county. In this they might well seek the assistance of the State Department of Health.

2. To correlate and coordinate all public health activities within the county and establish policies and plans to guide and direct any and all public health activities within the county. (See par. 1 of Sec. 2, County Health Law.)

3. To prepare a budget or resolution covering the necessary financial expenditure for the execution of all health activities within the county, setting out the amount available through the county board of supervisors and from each interested group, and present same to the county board of supervisors for approval. (See Sec. 2, County Health Law.)

4. After consultation with the State Department of Health (Sec. 3) the board shall employ the personnel of the county health unit, such as the county health officer, county health nurse, etc., and assign the duties of each, conferring authority incidental to such county officials.

5. To consider and act upon any other problem or proposition affecting public health that comes to their attention, which they may deem wise and necessary.

The county board of supervisors may appropriate all funds for the operation of the county health unit from any funds legally available (general or other funds) or may accept funds from any organization within the county to defray or help in the defraying of the expense incidental thereto.

To organize a county health unit the following ten steps may be suggested:

1. Any group or groups of interested persons may initiate the movement by organizing themselves as a committee.

2. Those groups most interested, viz: county board of supervisors and the county medical society should be consulted as to the advisability of correlation and coordination of all public health activities under the county unit plan.

The county board of supervisors should be consulted because it is they who must officially ap-

point the county board of health and also furnish the funds by tax levy or otherwise to help inaugurate the movement.

No other group within the county is in position to know of its health needs as is the medical profession. Organized medicine realizes the benefits of preventive medicine and will be found ready to advise and assist in the control of disease. The reason is obvious: The practice of medicine has ever changed. Thinking persons realize that the practice of medicine is no more a static condition than any other human endeavor. The physician of twenty-six years ago obtained a large part of his income from the treatment of typhoid, diphtheria, smallpox and infantile diarrhoea. While preventive medicine has reduced the physician's income from these sources almost to the vanishing point, the present day physician plays a more noteworthy role in the administration of preventive measures which are being more and more demanded by the public.

3. The committee should carry on a general public educational campaign on the subject.

4. A survey of all public health activities at present carried on within the county should be made. This should include all expenditures and personnel of organizations interested strictly in public health activities.

5. All organizations should be solicited to ascertain what monies or personnel they would add or join to the county health unit.

6. A tentative plan and estimate of the budget desired should be presented to the county board of supervisors by the committee.

7. The county board of supervisors should be solicited by the committee to appoint a county board of health composed of persons from organizations interested in public health.

8. The county board of health should organize and after consideration should present a resolution, setting forth the budget and personnel they desire, to the county board of supervisors.

9. The county board of supervisors should be solicited to adopt the resolution.

10. The county board of health should employ the personnel suggested by the budget adopted.

The State Department of Health stands ready to assist and advise the committee at any time upon any step being considered.

The functions of a county health unit may be enumerated as follows:

1. Administration, including:

a. Stenographic service.

b. Recording of births, deaths and communicable diseases.

c. General education, including addresses, newspaper articles, conferences, posters, correspondence, exhibits, etc.

2. Investigation of communicable diseases.

3. Quarantine and isolation of communicable diseases.

4. Venereal disease control.

5. Stimulating immunization campaigns.

6. Public health laboratory.

7. Public health and school nursing.

8. Sanitation: general, milk, and other foods.

RESULTS

1. The coordination and correlation of all public health activities on a county basis makes for greater efficiency and service.

2. Money spent for a well organized county health unit brings a greater return on the investment than any other governmental function.

3. Uniformity of quarantine measures.

4. The occurrence of communicable disease with its attendant complications may be greatly reduced—occasionally reduced to one-fourth the former endemic index.

Authorities who have made a study of family social welfare are responsible for the statement that from 70 to 85 per cent of all the families they are called upon to assist, are in need either directly or indirectly because of illness or disease.

Would suggest that most county boards of supervisors of Iowa are sorely tried to avoid the overdrawing of their poor fund at the present time.

Organized public health will reduce the occurrence of sickness. Therefore in the work of a coordinated county health unit we offer the solution of a very serious problem confronting us as taxpayers.

5. School inspection, county-wide, toward the correction of physical defects, making for healthier men and women of the future.

6. Instruction in hygiene in schools.

7. Improvement in general sanitation, especially rural.

8. More permanent tenure of office for the employees.

9. The actual saving of human life.

10. Improvement of the general health and well being of the whole community. General health promotion causes industry as well as families to come to the community because it makes the community a better place in which to live.

Case Report

A CASE HISTORY CLINIC*

WILLARD BARTLETT, M.D., F.A.C.S., St. Louis

I. *Intestinal Obstruction.*

Mrs. P., aged fifty-eight, married, was referred to us on June 6, 1919, with a diagnosis of chronic gall stone disease and an old rheumatic pancarditis. She was given four days of rest in the hospital before operation, which was performed under local infiltration with morphine and atropine preparation. There was much putty-like material and one non-facetted stone in the gall bladder, which was drained. Convalescence was smooth and the patient was discharged on the eighteenth day. On June 20, 1922, the patient was seen in our office; she was free of symptoms other than cardiac and was advised to continue treatment with her heart specialist. Five years later she had an attack of severe epigastric pain, requiring morphine, together with nausea and vomiting. After restoration of her body fluids and rest in the hospital, cholecystectomy was performed on August 4, 1927, with morphine-atropine preparation, local infiltration and nitrous oxide inhalation. She was discharged on the twentieth day after an uneventful course.

She had no further abdominal complaints until June, 1929. She then came in complaining of dull pain in the lower abdomen for two weeks, which had been quite severe for the past three days with constant vomiting, no bowel movement, and increasing abdominal distention. Diagnosis of acute intestinal obstruction was made and enterostomy performed in the first distended loop presenting under local infiltration. The enterostomy tube came out on the nineteenth day. Considerable digestion of the skin around the fistula appeared at once, but was readily controlled by placing the patient in a "colloidal bath" (one cup of cornstarch and one cup of baking soda to the tub of water) during meals, when the flow of intestinal juices was most free, and by covering the skin with a thick paste made of egg albumen and a little flour. She remained quite comfortable thus for some months at home, until as her nursing care became slack digestion of the skin again occurred. On October 25, 1929, a Pezzar catheter was placed in the fistula, its mushroom head in the lumen of the gut, as is our usual practice when the tube inserted at operation first comes out. Within a week the skin had healed around the catheter, which was

practically water-tight, and the patient could again be up and around. During this time she was on a low residue diet as it was our purpose to allow as complete absorption as possible of any bands that might have caused her obstruction. Leaving the catheter in the fistula assured us of a "safety valve" high in the small intestine if she should again become obstructed. In February, 1930, it was felt that this danger was past and the catheter was removed. Contrary to our usual experience, the fistula did not close and sufficient nursing care was not available to utilize the ordinary means of preventing skin digestion.

On April 10, 1930, the patient, now aged sixty-nine, reentered the hospital and five days were devoted to preparation and cleansing of the skin. The patient was then prepared for operation with luminal gr. xv. and under nitrous oxide inhalation the fistula was plugged with gauze, incision made into clean peritoneum just lateral to fistula; the adherent coil was identified, isolated by packs, cut free from the abdominal wall with the cautery and closed transversely with two rows of sutures; the inner end of the abdominal wall sinus was closed with a pad of omentum and the new abdominal incision closed in four layers. Peritonitis treatment was given for thirty-six hours; the course was quite smooth and she was discharged on the fourteenth day. On June 2, 1930, she had continued to regain her strength, the incision was clearly healed and the bowels moved daily. All such patients are instructed to take from one to two ounces of mineral oil with each meal before drinking any other fluid, to assure admixture of the oil with the food. When oil is taken in this fashion the stools are kept soft and oil does not come through by itself when the patient passes gas.

We have recently had somewhat similar experience with Pezzar catheters in several cases of fecal fistulae. If the catheter is inserted when the original enterostomy tube comes out, it permits the tissues to heal rapidly and to form a water-tight joint as the scar contracts. The tube may be shut off for increasing periods until it is worn under the clothing completely clamped off, to be released at once on the occurrence of pain or distention. We have had one patient wear such a catheter for eight months after emergency enterostomy for acute obstruction occurring six weeks after removal of a gangrenous appendix and drainage of an abscess. Her pelvis was a mass of adhesions from an old operation for ruptured ectopic pregnancy subsequent to pelvic inflammatory disease. She went quite unconcernedly about her usual life with the catheter in place and we closed her fistula by the technique above described.

*Presented before the Twin Lakes District Medical Society, Rockwell City, Iowa, June 12, 1930.

We have learned that if the catheter is removed within one month of operation, the contraction of scar tissue will almost invariably close the fistula within a few days, but that the tract becomes so rigid after this period that secondary closure of the fistula is usually necessary. When the catheter is first removed, egg albumen paste between colloid baths makes a more satisfactory dressing than does beef broth or other liquid preparations. Having meals in the bath allows these patients to eat freely; they will otherwise learn that the swallowing of food causes such copious flow of digestive juices through the fistula that they begin to starve themselves. Finally, a low residue diet with mineral oil during meals should be followed for at least a year, and probably always, by a patient who has once had an acute intestinal obstruction, unless the obstructing agent has been dealt with directly and is of such a nature that its recurrence can be deemed highly improbable.

The use of spinal anaesthesia* as advanced by my son in the differential diagnosis of acute obstruction and as a criterion for operative interference has proved very useful in our hands. It is our conviction, however, that *continuous* syphonage of the stomach, drainage of the bowel through the pylorus, so to speak, if instituted early and accompanied by replacement of body fluids will obviate much of the necessity for emergency operation on those cases of chronic, incomplete obstruction which become emergency cases when converted into acute, complete obstruction by a meal of coarse food, an overdose of cathartic, or similar indiscretion. A knowledge of the patient's past history may therefore be of prime importance in deciding on the course one will take when confronted with a case of acute intestinal obstruction.

II. Pyloric Obstruction.

Mr. McC., aged forty-five, married, a farmer, came to us on August 6, 1929, with a history of "indigestion," sensation of epigastric fullness, and constipation for twenty years, epigastric pain and vomiting related to meals for three and a half years. There had been a gradual loss of thirty pounds; for three months all food had caused considerable burning pain and he had vomited everything he had eaten.

There was complete pyloric obstruction; gastric analysis showed free HCL and no blood. The patient was hospitalized for two days on an intake of 4000 cc. of saline and glucose solutions by hypodermoclysis and venaclysis, respectively. During the night before operation he received barbitol

gr. v. every two hours for eight doses; operation was performed under spinal anaesthesia. An ulcer was found on the duodenal side of the pylorus. An enormously dilated stomach was resected at its middle, the duodenum closed, and an anterior Polya completed with entero-enterostomy by means of a Murphy Button. The abdomen was closed without drainage. The pathologist reported no malignancy in the microscopic sections. The patient was allowed to drink water immediately. During his hospital stay he was given alkali in the form of sodium bicarbonate tablets (10 gr.) once every waking hour. His course was entirely smooth and he was discharged on the fourteenth day with instructions to follow a low protein, low residue diet and to take the alkali every two hours for one month, then one tablet every three hours during the third month. On August 30, 1929, he wrote to say that he had regained thirty pounds, had had no gastro-intestinal symptoms and was once more able to do his farm work.

This case is in no way remarkable. It is presented as one which is ideal for a short-circuiting operation; i. e., for one of the forms of gastro-enterostomy, combined here with partial resection, because the exact location of the stricture with relation to the pyloric vein could not be determined, so great were the peritoneal thickening and deformity. With rare, though notable, exceptions there is marked dissatisfaction among surgeons as to the results of gastro-enterostomy in the absence of pyloric obstruction. Where one finds a grossly dilated stomach, the result of a long-standing ulcer on the duodenal side, the situation is ideal for gastro-enterostomy. If the ulcer be on the gastric side of the pylorus, its size, if large, and duration always make one take the ground that cancer may have already a foot-hold in it, and again one must do a resection as well as relieve obstruction. Since ulcerating cancers, as well as simple ulcers, are infected, the condition of the regional lymph nodes on palpation is not entirely trustworthy as a means of differential diagnosis at the moment when one must determine his course; i. e., when the belly is open. There is no field of abdominal surgery more satisfying to both surgeon and patient than that afforded by the relief of pyloric obstruction by operation, together with subsequent administration of alkali and low protein, low residue diet to avoid the occurrence of marginal ulcer.

III. Gall Stone Disease.

Mrs. G., aged twenty, entered the hospital October 22, 1928, with a history of acute pain throughout the lower abdomen, nausea, vomiting, and pro-

*Bartlett, Willard Jr., "An Indication for Early Operation in Intestinal Obstruction." S. G. & O., Vol. XLIX, No. 5, 1929, page 719.

fuse leukorrhea for three days. Her husband had a subacute specific urethritis. A diagnosis of acute gonorrheal pelvic inflammatory disease was made. The patient was kept in bed for twenty-five days during which time she had two very sharp attacks of gall-stone colic, became slightly jaundiced and had bile in her urine. There was no past history of such attacks. On November 17, 1928, cholecystectomy and appendectomy were performed after preparation with calcium chloride, the pelvic infection having quieted down. The gall-bladder was full of stones. Convalescence was smooth, the patient being discharged on the fifteenth day; there was no longer any leukorrhea and very little tenderness during pelvic examination.

Three months later she became pregnant. In the sixth month she had two attacks of sharp pain in the right upper quadrant, not severe enough to require morphine, but with persistent tenderness under the rib margin. One year after operation she was delivered of a healthy baby, but a week later there was a recurrence of pain in the right upper quadrant with jaundice and clay-colored stools. On December 2, 1929, she entered the hospital with a diagnosis of common duct stone. The icterus index was 30, w. b. c. 15,000. She was given eight days of preliminary rest, fluids, and calcium chloride. Under luminal preparation and ethylene inhalation, operation disclosed a stricture of the common duct nearly an inch below the stump of the cystic duct. There was marked dilatation of the common duct which contained black bile but no stone. The stricture was divided, excised and reconstruction was made over a Dever T-tube. The postoperative course was stormy; she had frequent cramping pains in the upper abdomen, accompanied by oozing of blood from the incision and vomiting of fresh blood on one occasion. She had four blood transfusions and was finally discharged on the twenty-sixth day with orders to take bile salts and calcium lactate. Improvement was gradual but steady thereafter. Four months after operation there was an exacerbation of the pelvic inflammation but this subsided on bed rest with local treatment. On June 2, 1930, there was practically no drainage from the T-tube, there had been no attacks of upper abdominal pain, digestion was excellent and weight and strength had returned to normal.

There are several points of particular interest in this case to date. The gall-stones obviously antedated the pelvic disease. The patient became pregnant, as she greatly wished to do, after the subsidence of the pelvic inflammation. But did the pregnancy and the latent pelvic infection bear

a causal relationship to the apparently inflammatory stricture of the common duct? Obliterative cholangitis, so to speak, has been discussed at considerable length by Judd and by Walters in recent years; we have followed their example in planning to leave the Dever T-tube in place for at least a year. It is pure speculation to consider the pelvic infection as a possible contributory agent in maintaining the biliary infection, but ought we not remove the foci of infection in the pelvis before taking out the T-tube? The latter is our only safety-valve. The point is critical; one more attack of cholangitis, a recurrence of stricture, and this twenty-one-year-old girl's ship will be completely wrecked.

IV. *Gonococcus Disease of Adnexa.*

Mrs. L., aged forty-one, the mother of two children, was seen on May 20, 1929. Her chief complaints were profuse leukorrhea, prolonged menstrual periods and bilateral pain in the lower abdomen for the previous two years. A diagnosis of chronic pelvic inflammatory disease was made; there was some suspicion of chronic cholecystitis as well. The patient had worked hard through her period of ill health and looked nearly exhausted. She was hospitalized for four days on bed rest. With preliminary luminal preparation the abdomen was opened under spinal anaesthesia; the uterus was boggy, four to five times normal size and the adnexa showed considerable chronic inflammation. These organs were completely removed and the incision closed without drainage. There was immediate postoperative shock but the patient responded promptly to blood transfusion which was repeated in three days. There was a continuous fever of 100 to 102.6; on the eighth day the lower end of the incision began to discharge sanguino-purulent material and a most offensive vaginal discharge started simultaneously. This gradually decreased and the patient was discharged on the twenty-second day with a small amount of drainage persistent. A month later the wound had healed but there was still a slight vaginal discharge. Two months later this had ceased and the patient felt excellent.

We were guilty of loose thinking on two points in the management of this patient. A thin, middle-aged woman, working hard through two years of a crippling infection, is in no condition to stand extensive surgery, nor can she build up sufficient reserve in four days. Her preoperative care should include blood transfusions, even in the absence of anemia, high vitamin diet, and a very restricted life (not confined to bed) over a period of several weeks in such sunshine as our climate

affords. She cannot be judged ready for operation, since no emergency exists, until the tired look has gone from her face, until she will smile without coaxing, and until her interest in things outside herself and her own family has been aroused. Knowing this well, we are human enough to overlook its importance entirely once in a while.

In the second place, we surgeons have regarded the female pelvis, except when acutely infected, too much as a place where one could play without getting his feet wet, so to speak. This frivolous view has been in line with the fact that the peritoneum becomes more "fool-proof" the farther one goes from the diaphragm. Let me say only that we were astonished to find that of our last one hundred deaths in hospital from all causes, seven followed operations in the female pelvis. Of these, one was from acute intestinal obstruction following ruptured ovarian cyst, with drainage and enterostomy, and a second died of peritonitis and ileus following operation for ruptured ectopic pregnancy. None of the other operations was performed for an acute or subacute lesion, yet the five patients died of peritonitis. There were no deaths following *vaginal* hysterectomy, however. This observation alone has caused us to take the view that drainage, to be really effective, should be carried out through the vagina. There can be no accumulation of fluid in the pelvis after operation when this is done.

There are four sites of infection which harbor the gonococcus: the tubes, the cervix, Skene's glands, and Bartholin's glands; once infection has become chronic in them, excision is the only cure. Interference in the acute or subacute stages carries a forbidding mortality; the disease is almost never a surgical emergency. The most common confusion of diagnosis is with extrauterine pregnancy; if the abdomen is opened incorrectly on the latter diagnosis, it should be closed at once.

V. *Uterine Prolapse.*

Mrs. G., aged forty-six, mother of one child, came to us complaining of backache, pain and "pulling sensation" in the lower quadrants of the abdomen, frequency of urination, and poor control of the anal sphincter. Examination showed her cervix protruding at the vaginal outlet and a considerable rectocele. Her general condition was excellent. On April 24, 1930, operation was performed under spinal anaesthesia after luminal preparation. Our technique for abdominal fixation of the uterus differs from other methods somewhat. The incision through the fascia and peritoneum is made so small that when the uterus is twisted ninety degrees to be delivered into the

wound, it must be forced through by traction on the cornua in turn, much as one delivers a baby's shoulders over the perineum. The uterus then rotates back ninety degrees. The broad and round ligaments are divided between clamps; the lateral ends are ligated and allowed to drop back into the abdomen, thus doing away with much of the pull which tends to return the uterus into the abdomen. The space between the bladder and the abdominal wall is obliterated by a continuous suture. The uterine ends of the broad and round ligaments are then ligated and sewed to the rectus sheath; finally the peritoneum is sewn around the uterus low down on the body. Perineorrhaphy may then be done if necessary. In this case, the rectocele was repaired. The patient was discharged on the fourteenth day, having made a smooth convalescence. Six weeks later examination showed the uterus to be shrunken and firmly anchored. There was no hernia; and no tendency of the parts to descend into the vagina on cough or straining.

We learned to follow this procedure by anchoring the vault of the vagina in this fashion following failure of relief by hysterectomy. The abdominal fixation is simple and easy compared with the complications of doing a plastic operation through the vagina. The operation, as described, combats the tendency of the uterus to return to its intra-abdominal position because (1) it is delivered through a small incision; (2) after rotation, the broad and round ligaments, which give no support to the pelvic floor, are divided and (3) their uterine ends anchored in the rectus sheath. The risk of hernia is minimized by (1) bringing the uterus into the upper angle of the incision and (2) obliterating the space between the peritoneal covering of the bladder and the anterior abdominal wall. Perineorrhaphy will often be found to be unnecessary after the abdominal operation is finished.

VI. *Postoperative Hernia.*

Mrs. W., aged forty-seven, mother of one child, came to us on April 23, 1928, complaining of dysmenorrhea and menorrhagia for five years. A huge fibroid uterus could be felt. Her red blood cell count was 3,000,000, leukocytes 9,500. The patient was quite obese. She was hospitalized for eight days on a liver diet and transfused with blood. On May 1, 1928, under spinal anaesthesia, the uterus, almost the size of her head, was removed supra vaginally. The tubes and ovaries were not disturbed. The abdominal wall was closed without drainage. The pathologist reported adenomyoma. The patient had a low fever for several days and coughed up a small amount of

thick sputum; she then developed a mild phlebitis in her left leg and was not discharged until the twentieth day. On June 18, 1928, she was re-examined and it was found that she had gained considerable weight. Four months later she returned with a hernia at the lower end of the incision. Because of her tendency to catch cold easily and to cough, she was advised to wait until spring before having a repair and was given a reduction diet. She returned on September 26, 1929, for operation, having disregarded the diet entirely. Her weight was 220 pounds. By diet and thyroxin, gr. 1/80 daily, her weight was reduced to 184 pounds within ten days in the hospital without any untoward symptoms. On October 5, 1929, she was given barbitol and morphine-atrophine preparation and operated on under spinal anaesthesia. Herniotomy was easily done with repair by wide overlap of all layers. A rubber drain (Penrose) was brought out through stab-wounds at each end of the incision. She was kept in bed eighteen days and discharged on the twenty-fourth day, the incision cleanly healed. She was warned to keep strictly to her diet, but on return on March 7, 1930, her weight was 192 pounds. The wound was entirely solid.

The factors giving rise to postoperative hernia are of two sorts. The first group arise from increased tension within the torso, either in the chest or in the abdomen; they are coughing, sneezing, hyperpnea, intestinal distention, straining at stool or on urination, and tight dressings or binders. Most of the patients we see who have reached middle life in our climate have a low-grade chronic bronchitis which is apt to have exacerbations in the later winter months and the least irritating of the inhalation anaesthetics results in an outpouring of mucus in the bronchial tree. The second group of factors are those occurring in the abdominal wall itself; the chief ones are infection, loss of nerve supply, and too early absorption of catgut. The necessary overlapping is astonishingly facilitated if one has reduced the fat, both intra-abdominal and of the abdominal wall, by diet and thyroid feeding under careful supervision, and has softened up the tonus of the abdominal muscles by partial bed-rest. These precautions, together with spinal anaesthesia, often make possible a repair that is seemingly hopeless at first glance. It is, of course, useless to repair a hernia that has arisen from straining at a urethral stricture or from the cough of bronchiectasis until all such lesions are dealt with first. If obesity is a contributing cause to increased intra-abdominal tension the weight must not only be reduced before repair is undertaken, but must be kept within reasonable limits afterward.

THE COLLEGE OF MEDICINE

The Annual Medical Clinic, sponsored by the State University of Iowa and given by the faculty of the College of Medicine, will be held in Iowa City, Iowa, November 21 and 22, 1930.

Program

Friday, November 21

Morning

- 8:30- 9:00—Registration, University Hospital
- 9:00-10:00—Clinic, General Surgery
Dr. H. L. Beye
- 9:00-10:00—Clinic, Medicine
Dr. F. M. Smith
- 10:00-11:00—Clinic, G. U. Surgery
Dr. N. G. Alcock
- 10:00-11:00—Clinic, Pediatrics
Dr. P. C. Jeans
- 11:00-12:00—Clinic, Orthopedic Surgery
Dr. A. Steindler
- 11:00-12:00—Clinic, Ophthalmology
Dr. C. S. O'Brien
- 1:00—Luncheon

Afternoon

- 2:00- 3:00—Clinic, Obstetrics and Gynecology
Dr. E. D. Plass
- 2:00- 3:00—Clinic, Otolaryngology
Dr. D. M. Lierle
- 3:00- 4:00—Clinic, Neurology
Dr. C. Van Epps
- 3:00- 4:00—Clinic, Dermatology
Dr. J. B. Kessler
- 4:00- 5:00—Demonstrations, Pathology
Dr. H. P. Smith
- 4:00- 5:00—Demonstrations, Roentgenology
Dr. H. D. Kerr
- 6:30—Dinner and Social Hour
- 8:30—Address, Guest Speaker

Saturday, November 22

Morning

- 8:30-10:00—Ward talks in Medicine, Surgery, Obstetrics, Orthopedics, Pediatrics, Psychiatry, Neurology, Ophthalmology, Otolaryngology, Dermatology. For limited groups, by assignment
- 10:00-12:00—Case presentations—Ten minutes each
- 10:00-12:00—Laboratory demonstrations — Special groups
- 12:30—Luncheon
- 2:00—Football game—Iowa vs. Nebraska

STATE HEALTH COMMISSIONER'S PAGE



D. C. Stulman, M.D.



The diseases most prevalent during the month of September were scarlet fever, poliomyelitis, whooping cough, smallpox and chickenpox in the order named.

SCARLET FEVER

Ninety-four cases of this disease were reported. This is an enormous increase over the 27 cases reported in August; nearly four times as many. It is the greatest increase from August to September which has occurred since 1924. Question: Does so great and so sudden an increase indicate a period just ahead during which scarlet fever will show an increase of almost epidemic proportions? The number of cases reported for 1929, 4,315, seems to indicate that the answer to that question should be in the negative. The figures for the current year lend weight to that indication for the first nine months of 1930 have seen 2,072 cases reported. With the exception of 1929, this is 87 more cases than were reported for any corresponding period since 1924.

POLIOMYELITIS

An increase in the number of cases of poliomyelitis was noted last month. This increase continued throughout September. The outbreak started apparently in California where about 500 cases have occurred, and spread gradually eastward. One hundred and nine cases were reported in Iowa up to September 30. These cases occurred as follows: 9 in July, 16 in August and 84 in September. Reports were received from 37 counties. Only one case was reported previous to July first. This one occurred in April. During 1929, cases were reported in every month. The total for that year was 76 cases, of which 26 were reported in October. Convalescent serum for treatment of acute cases is available from the Glomset Laboratory, Des Moines.

WHOOPING COUGH

Although mentioned as among the most prevalent, only 40 cases of whooping cough were reported as compared with 91 cases for the same month last year. For the nine months of 1930, 514 less cases have been reported than for the

corresponding period of 1929. 1930 bids fair to be a low year.

SMALLPOX

For the first time in many months, smallpox has come down to what may be called its "normal incidence." Only 36 cases were reported.

TYPHOID FEVER

Although there was a large outbreak of typhoid fever in November of 1929 which accounted for 84 of the 94 cases reported during that month, the "typhoid season" of 1930 has probably ended. This does not mean that the rest of the year will be free from typhoid but that the number of cases for each of the remaining months will probably be less than for the mid-season months. A comparison of the number of cases for the corresponding 9 months of 1929 and 1930 will show that the 1930 season has produced less cases than 1929.

Typhoid Cases by Months, 1929 and 1930

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Total
1929	1	7	10	22	1	10	15	67	29	162
1930	5	3	6	2	1	10	7	8	19	61

The 19 cases reported in September were scattered among 13 counties, 5 being reported from Black Hawk, 2 from Woodbury, 2 from Boone and one each from Des Moines, Dubuque, Floyd, Greene, Jasper, Jefferson, Johnson, Polk, Webster and Wright. The 61 cases reported during the first nine months of 1930 represent the lowest number of cases for the similar period of any year since 1925 when 51 cases were reported to October first. The last four months of that year saw an increase in the number of cases which brought the total to 133. Barring a large local outbreak such as occurred in November 1929, the year 1930 should see the smallest number of cases of typhoid fever in seven years.

PERTINENT QUESTION

Ampules of silver nitrate for the prevention of infection of the eyes of the new-born are now furnished free.

Would the furnishing without charge of toxin-antitoxin or toxoid, smallpox vaccine, anti-typhoid vaccine and arsenicals for the treatment of syphilis be of benefit to the people of Iowa in the control of these specific diseases?

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ISSUED MONTHLY

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Nephrology
III GLOMERULO-NEPHRITIS

DEFINITION

Glomerulo-nephritis may be defined as a diffuse inflammatory disease of infectious origin affecting the renal units. It is characterized anatomically by proliferative changes in the glomeruli and degenerative changes in the tubules, and clinically, by a decreased output of abnormal urine and by edema. The course may be acute, with recovery; or chronic, with fatality.

ETIOLOGY

The anatomic changes found in the renal units, as well as the clinical symptoms of the acute stage, point to a bacterial origin of the disease. Further, the fact that nephritis often precedes or follows infections due to streptococci elsewhere in the body, indicates that these micro-organisms may be primarily responsible for the majority of cases of nephritis, although nephritis at times follows other infections. Since blood cultures are practically always negative, and since the urine is free from any pathogenic organisms in most cases of pure nephritis, it seems improbable that the changes found in the kidneys are due to the actual presence of bacteria in the renal units. The diffuse bilateral character of the lesions is also hard to explain on the basis of direct infection in the kidney. It is likely that bacterial poisons from some other focus in the body set up the changes found, during their attempted elimination by the kidneys. It is difficult to understand why these changes should be limited to the kidney. Longcope's explanation¹ is very attractive. He assumes

that the glomerular cells are rendered hypersensitive to bacterial poisons by the presence of infectious foci in other parts of the body. Volhard² holds that the circulating poison produces a contraction of the afferent arterioles, so that the changes found are due to ischemia of the glomeruli and tubules. But a simpler explanation is that deleterious bacterial products irritate the glomerular endothelium and epithelium during their excretion, setting up the changes that are found.

MORBID ANATOMY

The morbid anatomy of glomerulo-nephritis has been described most recently by Bell.³ In brief, these changes consist of a proliferation of all the elements of the involved renal corpuscles, tending to effectively plug up the vascular channels. This leads to a gradual diminution of the blood supply to the convoluted tubules, which undergo degeneration, so that the end product is sclerosis of the glomeruli with necrosis of the tubules; i. e., complete destruction of the renal unit. The proliferation of the connective tissue and the subsequent scarring are secondary changes due to destruction of the functioning elements.

PATHIOGENESIS

The clinical manifestations of these changes are dependent upon the extent of the involvement of the renal elements. The damage wrought, as well as the subsequent course of the disease, varies according to the concentration of the poisonous proteins which reach the kidney and the length of time during which such deleterious substances are circulating in the blood. It is quite possible that such substances may reach the kidney more frequently than one realizes and that the so-called focal nephritis which morbid anatomists occasionally encounter in the apparently normal kidney may be explained in this way. At any rate, it is not until a considerable portion of the renal elements is involved that symptoms of nephritis are produced.

SYMPTOMS

In the acute stage of the disease, the symptoms are of two types:

- (A) Those due to the general toxemia
- (B) Those brought about by the renal changes

The general symptoms are those of an acute infection: fever, leukocytosis, aches and pains, malaise and anorexia. These symptoms are similar to those in other mild infections. The pyrexia is not usually marked or prolonged. At times, the aches and pains in joints and bones may be distressing. Often the patient is not seen until these symptoms have nearly disappeared.

RENAL CHANGES

The symptoms due to the renal changes are: first, urinary changes, and second, general disturbances due to renal insufficiency. The urinary changes are well known and need but little comment. The amount of urine is decreased. The diminution varies all the way from a slight, almost imperceptible reduction to a complete anuria. In this disease, the kidneys first fail to maintain a proper water balance. It is only toward the end in fatal cases that the other phase of renal insufficiency sets in. In other words, failure to eliminate the proper amount of water is conspicuous from the first in glomerulonephritis. The urine is of high specific gravity and usually loaded with albumin and casts. The more active the process, the more white and red corpuscles occur in the urine. There is a marked decrease of sodium chloride in the urine. The amount present seems to be in inverse ratio to the amount of water retained in the body. This has led to the assumption that the kidneys are unable to excrete sodium chloride. There is no evidence for this. It is more probable that the salt is retained in order to keep the proper amount of crystalloids in the tissue fluids. In the acute stage, the protein metabolites are not retained and the dye test for renal function is usually normal. Vollhard holds that the blood pressure is raised in every case of glomerulonephritis. If such is the case, this elevation must occur early and be transient, for in my own experience as well as that of others, the blood pressure is practically normal during the entire acute stage.

Daniel J. Glomset, M.D.

1. Longcope, W., *Kidney Symposium*, Minneapolis, 1930.
2. Vollhard, F., *Kidney Symposium*, Minneapolis, 1930.
3. Bell, E. T., *Kidney Symposium*, Minneapolis, 1930. *General Pathological Consideration—Glomerulonephritis*.

THERAPEUTIC FEVERS

From the time of earliest recorded medical history, we find that observers have noted the presence of fever accompanying certain types of diseases. Until a comparatively recent date, however, fever has been regarded in very much the same light as pain—namely, as a result of, or a symptom of, the disease.

Prior to the observations of Wagner von Jauregg¹ in 1918 and 1919, little attention had been paid to fever as a possible curative process. Following his observations, however, attention has been directed to hyperprexia as possibly a physiological response to certain toxic stimuli, which in itself plays a very significant part in recovery from certain diseased conditions. It has been observed, for example, for a very long time that in certain conditions now known to be of an

infectious nature, a favorable prognosis could be expected when the temperature followed a definite hyperprexial curve, whereas a deviation from this curve, particularly to normal or sub-normal temperatures, rendered the prognosis exceedingly grave. During the past decade, because of this changed viewpoint relative to fever, considerable evidence has been accumulated indicating beneficial results from the application of artificial means for the production of fever reaction.

It has been suggested that the basis for the benefit observed in non-specific protein therapy, the intravenous use of certain dyes (notably mercurochrome), and the favorable aspect of superimposed or concurrent infections, are all manifestations of this principle. This latter observation formed the basis of von Jauregg's experiments in the treatment of neurosyphilis by the infection of the patient with the malarial parasite. Although many other fever-producing substances were employed in the treatment of this condition previous to, and since the report of von Jauregg, malarial inoculation continues to be the most popular febrile treatment. Favorable reports have multiplied, and in some instances—notably that of Bahr and Buetsch²—a considerable number of patients have been observed over a period as long as ten years. Granted that as many as 30 per cent of all cases of neurosyphilis obtain good and lasting clinical reactions, as reported by H. C. Solomon³, the fact still remains that this procedure is accompanied by a certain mortality and morbidity which cannot be ignored. Of 106 cases treated by Bunker and Kirby⁴, thirteen died during, or immediately following, the malarial paroxysms, and nine died from two to eleven months after treatment. Solomon reports an immediate mortality of some 1 to 5 per cent, sometimes reaching as high as 10 per cent in the cases treated. Because of this unfavorable aspect of malarial therapy, suggestions have been made relative to the use of other agents for producing hyperprexia resembling in type that produced by malarial fever.

It is interesting to note that, during the past twelve months, reports have been made relative to the use of (a) diathermy in the treatment of paresis, and (b) the short radio wave in the treatment of this disease. The former method, as reported by King and Cocke⁵, involves the use of special apparatus, although they suggest that the ordinary diathermy machine may be adequate when the patient is properly insulated. The fact that many physicians' offices are already equipped with high-grade machines for diathermy treatment would certainly, in itself, recommend this method.

The two methods have in common the fact that no pathogenic organism of unknown effect is in-

jected into the patient, that the frequency, duration, and intensity of the fever paroxysm may be accurately controlled, that this agent may be used effectively in cases immune to malaria, and that drug therapy can be carried on concomitantly with the pyretotherapy. It is possible that, with the short radio wave, as reported by Carpenter and Boak⁶, because of the fact that hyperprexia is produced by the resistance of the body to the conduction of the current between opposed plates, a more favorable systemic action may be developed. At this time, however, suitable radio equipment has not been perfected permitting universal use of this method, but these observers note that the research laboratory of the General Electric Company is at this time working on this problem, and no doubt, within the next few months, a highly satisfactory equipment will be developed. With the perfection of safe methods for producing artificial fever, observations will no doubt be made relative to this medium in the treatment of many other baffling conditions. Certainly, these observations are most promising, and should be closely followed by progressive physicians.

1. Von Jauregg and Wagner: Die Einwirkung der Malaria auf die progressive Paralyse. *Psychiatrie-neurol. Wehnschr.*, 20: 132, 1918-1919.

2. Bahr, Max A.; and Buetsch, W. L.: Two years' experience with the Malarial Treatment of General Paralysis in State Institutions; *Clinical Serological and Autopsy Observation in 100 Cases*. *Amer. Jour. of Psychiatry*, 7: No. 5, March, 1928.

3. Solomon, H. C.: *Oxford Med.*, vol. 6, part 2, p. 616.

4. Bunker, Henry, Jr.; and Kirby, Geo.: Treatment of General Paralysis.

5. King, J. Cash and Cocke, Edwin W.: Therapeutic Fever Produced by Diathermy, with Special Reference to its Application in the Treatment of Paresis. *Southern Medical Journ.*, March, 1930.

6. Carpenter, Chas. M. and Page, Albert B.: The Production of Fever in Man by Short Radio Waves. *Science*, May 2, 1930.

MEDICAL SOCIETY OF THE MISSOURI VALLEY

The Medical Society of the Missouri Valley held its annual meeting in Des Moines, October 15, 16, and 17, with Dr. E. D. Plass, of Iowa City, as presiding officer. The attendance was quite limited, due partly to inclemency of weather, and partly to the time selected for the meeting, since the week previous had seen the Fall Clinics in Kansas City, and the week immediately following was the Tri-District Meeting in Minneapolis. The general apathy of the profession in this section was probably responsible to a considerable degree for the small attendance. Far off fields appear greener, but at the conclusion of the program, it was quite evident from the general trend of conversation, that the home pastures were quite abundant.

The society carried out its purpose; a short intensive study of post graduate work. The theoretical presentations were well balanced by practical

clinics and clinical experience of the masters. The meeting day was divided: with the forenoon given over to presentation of papers by members or invited guests; the afternoon to well conducted diagnostic clinics; and the evening was devoted to papers of a general trend.

The papers were well chosen and the discussion which ensued was very beneficial. No doubt the most enlightening portions of the session were the clinics held by Wilder on Diabetes, Mayer on Arthritis, Judd on Gall Bladder and Stomach, Davis on Neurology, Musser on Heart and Bloodgood on Cancer. Dr. Bloodgood's morning discussion on Cancer of Skin and Oral Cavity was practical and well demonstrated by slides, taken from his own cases.

The smoker on Wednesday evening was well attended, and many cares were forgotten as new acquaintances were made and old ones renewed. The banquet on Thursday evening was only fairly attended, but no complaints on the program or entertainment were audibly heard.

If there is a place for such a society as the Missouri Valley Medical Society then we wonder at the attendance and the inactivity of the profession at large toward it. If something of value can be secured close at home, then let us help make the society what it should be.

MEATS AS SOURCES OF VITAMIN G

Vitamin G, growth-promoting factor for animals and man, is found to be from five to eight times more abundant in beef liver, pork liver, and beef kidney than in lean beef, pork, and lamb, according to a series of tests recently finished by Ralph Hoagland and George G. Snider of the U. S. Department of Agriculture.

The experiments involved the feeding of young albino rats which were kept in separate cages and weighed regularly. All comparisons were made on the basis of air-dry, fat-free materials. The rats were first fed a basal ration lacking only in vitamin G until growth ceased, when meat or meat by-products were added to supply the growth-producing factor. Lean beef, pork, and lamb appeared to contain approximately the same quantities of the growth-producing vitamin G and when comprising from 15 to 25 per cent of the rats' rations, resulted in excellent growth. Beef spleen appeared to contain as much of this vitamin as beef.

The tests indicated that 3 per cent of beef liver or pork liver and slightly less of beef kidney, in a rat's diet, furnished an ample supply of vitamin G for rapid growth. The minimum quantity neces-

sary for normal growth is probably considerably less than the proportions indicated.

Among other foods known as good sources of vitamin G are egg yolk, salmon, wheat germ, bananas, leafy vegetables, and milk. These are not however comparable with each other in the amount of vitamin supplied, but all furnish it in appreciable amounts.

A JOURNEY TO SPAIN

PART II

OTIS WOLFE, M.D., Marshalltown

The women of Spain live secluded lives. They are not allowed to enter into business or social affairs except in the home. They are, however, supreme there. In Barcelona, this is changing. A few women are working as secretaries. They can, of late, appear on the streets alone if they are careful. Industry is beginning to use them. They attend American movies and admire the women of our country for their independence. They say, "Some day, we too, will have the ballot and be free." The women of our country may sigh for the romance of old Spain as portrayed on the screen or in story but they would be sadly disillusioned by the real status of the average woman of Spain. It is best borne out by the following: The Hospital San Pablo Clinic has been operating two years or more. Only men cataract cases can be operated, for as yet there is no provision made to care for women patients. This was a matter of deep chagrin to Professor Barraquer and other progressive members of the staff. They expected to be able to care for them some time this summer. One young chap sarcastically explained that every time they get some extra money, they buy a new alabaster statue for the chapel.

Hospitals are found only in the large cities and they are used only by the poor. They are run by nuns and monks. The Hospital San Pablo is a beautiful unique structure of Catalan architecture built around a court. A Dr. Gill, who became wealthy in Brazil, contributed the money to finance it. It was started some sixteen years ago, and is still incomplete but operating. "Manana" or tomorrow we will finish it. This is typically Spanish.

The monks and nuns are a lovable, easy going class who impressed me as wholly devoted to the cause of caring for the sick. Their smiles were kindly and their touch soft. The wards were light, airy and clean. The patients were well cared for. A bottle of wine and a loaf of hard bread was beside each bed. The kitchens were scrupulously clean and efficiently conducted. If I were a charity patient, I believe I would rather be a

patient here than in most of the wards of our own charity hospitals.

Dr. William J. Harrison of Philadelphia has a fellowship from Jefferson Medical College for a year's study abroad on cataract. He is most enthusiastic over Professor Barraquer's intracapsular extraction and has decided to spend most of his time there learning the method.

Professor Barraquer's eye clinic draws patients from all over Spain. Cataracts are numerous. Much trachoma was seen but I was specifically given to understand that very few of these were Catalans. They were from Andalusia or southern Spain. The people of southern Spain show marked traces of their Moorish forbears in look and in action; slow and easy going; no troubles or worries; ignorant but happy.

In Spain, it is a mark of affluence and social standing to be able to call the doctor to your home. Most of the doctors have a small hospital in connection with their office to care for private patients. Professor Barraquer has about a dozen beds to care for his private cataract patients and a modern operating room in connection. He has the finest collection of eye dissections I have ever seen. Eyes can be purchased for twenty-five cents each. The nurses at the offices are nuns as at the hospitals. Professor Barraquer's father was an oculist of the highest standing. Professor Barraquer is most famous for his intracapsular cataract extraction. He has patients from all over Europe. He had cataract cases from England, France, South and North America while I was there. The present Pope and the King of Spain, as well as other people of prominence, have been eye patients of his. I was pleased to find him using one of my forceps in his cataract technique. He is a beautiful operator and a genius of the first order. When we were guests at his home, we were shown through his elaborately equipped machine shop. This is his hobby and he works at it during his leisure hours, perfecting or developing various optical apparatuses. He presented me with one of his new cataract pumps and apparatus; a truly royal gift, considering its cost in this country. His home is partly a museum of rare and unusual trophies. Among them is an Egyptian amulet to ward off eye diseases. This was taken from a tomb dating back to 5000 B. C. He has a mummy head from one of the lesser dignitaries of King Tut's tomb. These were presented to him by members of the royal family of Egypt who had been patients of his. Their intrinsic value to collectors is fabulous.

While we went through his marvelous garden and rock grotto, a dog went by, chasing a cat.

Professor Barraquer hurriedly and anxiously sent a servant to aid the cat, explaining to us that this cat had a cornea transplanted from another cat by him. We saw the cat later on. The corneal graft was clear enough in the center to see through.

The banquet served in our honor at Professor Barraquer's home was arranged for 9 p. m., but it was 10 p. m. before we were seated. This is customary in Spain. Breakfast consists of rolls and coffee as in all continental countries. Appropriate light wines are served with each course. Highly spiced and seasoned foods are not served in the higher class Spanish homes. Their cuisine is patterned after Paris, whose chefs excel the world.

In Spain, milk means goat's milk. Undernourished children and invalids occasionally have cow's milk obtained for them. No dairy herds or buildings are seen. The farm buildings are usually small stone huts. The abundant sunshine and outdoor life make the people healthy and strong. Tuberculosis is scarce except a small amount in the cities. Children are well nourished and healthy looking with few manifestations of rickets. Typhoid fever is quite common in the rural districts but not in Barcelona.

In passing through the large airy wards of the medical department of San Puablo Hospital, I saw several cases of Malta fever. The medical department of the University of Barcelona is housed in separate buildings. They are spacious and as well equipped as any in Europe and rank with the best. It is particularly well known for research work, especially in physiology.

It is a common practice for physicians to have their offices in the home, especially in the smaller towns. Only male office attendants are employed. This is not only true in physicians' offices but also in most all business and professional work.

Professor Barraquer has an English speaking lady secretary. She was most efficient and likeable. She informed me that only in the last few years has it been possible for a lady to work at even secretarial positions. Even now, Barcelona is the only city in Spain where it is possible. Custom decrees that women be kept secluded at home and they are kept there. The younger generation is becoming rebellious and if they ever obtain suffrage, they will overturn some of these ancient traditions.

I was not particularly impressed that the seclusion and suppression of women to the status of being only home-makers and mothers, in direct contrast to their freedom and equal rights in America, was advantageous. Neither am I a believer in the double standard, as practiced in the Latin countries, as being conducive to chastity or

a high moral standard. The poor girl has no opportunity, whatever.

There are no private nurses outside of the nuns. These go out on private cases and assist some of the doctors at their offices. Midwives flourish and care for the majority of the population during childbirth. The people are exceedingly superstitious and all kinds of charms are used to ward off diseases. Favorite saints are invoked to ward off particular diseases and ailments.

Spain is entirely Roman Catholic and the church and state are closely allied as they have been from medieval times. The king, personally, is quite popular but the aristocratic nobility that he personifies is not. They say he is the last king. The heir apparent is a hemophiliac. Both Spain and Italy are governed by dictators. As one very intelligent young student said to me in Rome, "Our country is efficiently run but we are no longer free men. We all envy America but do not dare to express an opinion or we are thrown into jail." The Spanish dictator is not quite as ruthless as that of Italy but nearly so.

THE NEW YORK ACADEMY OF MEDICINE LECTURE COURSE

The fifth series of Friday afternoon lectures has been announced by the New York Academy of Medicine, to be held from November 7th until April 17th, at weekly intervals. The meetings are announced for four-thirty o'clock on the Fridays designated.

The subjects discussed cover a very wide range of medical and surgical subjects, presented in every case by an authority. Typical of the lectures may be mentioned the one of November 7th, "Epilepsy and the Convulsive State," by Foster Kennedy, of Cornell University; November 14th, "Carcinoma of the Colon," by Frank H. Lahey, of the Lahey Clinic; November 21st, "The Treatment of Pelvic Infections," by George Gray Ward, of Cornell; December 5th, "The Thyroid," by Nellis B. Foster, of Cornell; December 12th, "The Therapeutics of Ultra-Violet Light," by Alfred F. Hess, of New York; December 19th, "Occupational and Industrial Diseases," by Miss Frances Perkins, New York State Industrial Commissioner. These lectures are open to the profession generally and Iowa physicians who may be in New York on any or all of these days are especially invited.

THE TRAINING OF MEDICAL SPECIALISTS

A survey of the present facilities and methods of training medical specialists has been begun by a committee from the New York Academy of Medicine, with a view to raising the standards of the practice of specialists in the metropolitan area through state legislation and the cooperation of the general membership of the profession, and to collect data by which the standards of medical teaching in other countries may be compared with those of the United States.

OFFICIAL CALL
House of Delegates Special Meeting
Wednesday, December 17, Des Moines, Iowa

To the members of the House of Delegates
of the Iowa State Medical Society:

In accordance with the action of the House of Delegates in Marshalltown, May 13, 1930, a special meeting of the House of Delegates of the Iowa State Medical Society is hereby called for 9:30 A. M. on Wednesday, December 17, in the Hotel Fort Des Moines, Des Moines, Iowa.

The purpose of this meeting is to hear the report of the Committee on Medical Education and Hospitals. A special report of the Committee on Public Policy and Legislation will also be received and such other business transacted as may be proper and fitting at that time.

Due to the state-wide interest in the report of the Committee on Medical Education and Hospitals which deals with the operation of the Perkins, Haskell-Klaus Laws, the University Hospitals and the College of Medicine, the report of the committee has been drawn with great care; it thoroughly covers the field and will undoubtedly make a vital contribution to this most important subject of medical and political interest.

Since the legislature convenes this winter it is essential that the report of the Committee on Public Policy and Legislation should be carefully acted upon by the House of Delegates, and it is urged that each county in the state make a special effort to be fully represented at the coming meeting.

W. A. Rohe

President.



Christmas Seal Campaign

Being an especial appeal to the physicians of Iowa to further a program which insures the continuation of Iowa's declining death rate from tuberculosis which is now said to be the lowest of any state in the union.



Fifty-two million penny Christmas seals distributed by the Iowa Tuberculosis Association will be offered for sale by local committees in every county in Iowa during the twenty-fourth annual seal campaign which extends from Thanksgiving to Christmas. This quota for Iowa is twelve million more than ever before.

The proceeds of the seal sale are used by the local associations in various forms of child health work, nursing, weighing and measuring, health education, fresh air camps, clinics, dental inspection, school health supplies such as scales, first aid kits, thermometers, posters, books, etc., a portion by the State Association for the prevention of tuberculosis both in humans and animals, in the discovery and prevention of heart disease, and in general health work.

During the twenty-four years in which the money thus raised has been used in preventing disease and promoting health the tuberculosis death rate has been reduced fifty-five per cent, infant mortality more than twenty-five per cent and the general death rate more than ten per cent. Last year witnessed a new low mark for Iowa in its tuberculosis rate.

Although for the past five years heart disease has headed the list of fatal maladies, tuberculosis continues to be the most costly enemy to mankind in time and money. It is the chief cause of death in the most productive ages of fifteen to forty and recently the steady course of reduction has suffered a set-back in regard to girls of high school age and early adult life.

The report of Dr. A. J. McLaughlin of the United States Public Health Service on public health work in Iowa, published in a recent issue of *THE JOURNAL*, praises the close and friendly co-operation existing among the State Medical Society, the State Department of Health and the Iowa Tuberculosis Association. He emphasizes the value to the State Department of Health, of the work of unofficial agencies such as the organized profession and the tuberculosis group. Although

the latter is an organization consisting both of laymen and physicians, it is mainly guided in its policies by members of the medical profession who constitute the majority of the executive committee.

The Iowa State Medical Society has for many years endorsed the Christmas seal sale which is the sole means of support of the Tuberculosis Association. Its trustees and council have commended the association for its helpfulness to the medical profession. On the other hand the association recognizes that medical science and medical guidance furnish the basis for all of its educational efforts in the field of preventive medicine and public health. The Tuberculosis Association also considers as one of its obligations the support in every way desired of the projects of the State Department of Health and especially of its legislative budget.

Among the instances of this close cooperation which promises to become even more satisfactory this year are the distribution of literature during the early diagnosis campaign advising people to go to their family physicians, the stimulation of post-graduate courses for practicing physicians and the offering of service to county societies in line with the newly-created Speakers' Bureau of the State Medical Society. Among these services are special speakers either on technical or popular phases of public health, clinical conferences in heart and tuberculosis for regular county society meeting programs, the loan of films on tuberculosis and other subjects, the loan library of standard approved reference books, promotion of the county health unit plan and in general any service that will further the interests of the medical and dental professions.

Many of the county physicians are actively interested in the local public health association or Christmas seal association which is affiliated with the State Tuberculosis Association, and in several counties physicians occupy the presidency or chairmanship of such association.

Speakers Bureau—Its Organization and Purposes

The Iowa State Medical Society has taken its place with other progressive state medical societies by establishing a Speakers Bureau. This work is to be carried on under the supervision of a special committee appointed by the president of the society. The office of the committee will be located with the offices of the state society in Des Moines. Through the cooperation of the councilors and local societies the bureau aims to bring about an increased efficiency of the individual practitioner as well as to help and direct the education of the public in health problems.

Now the committee cannot do all the work and bring these new advantages into your community unless the councilors and the individual county societies cooperate and avail themselves of the opportunities offered.

By the close relationship between the state society and the College of Medicine at Iowa City it is going to be possible for the committee in charge to offer post-graduate courses of approximately twenty hours each in your own cities at a moderate cost to each individual. Already courses of intensive instruction in obstetrics and pediatrics can be arranged and symposial courses in cardiac and cardiorenal diseases, in acute infectious diseases and in neuropsychiatry are available. It is hoped that the scope of these courses can soon be increased to include more subject matter.

The central office aims to keep on hand a list of speakers for both professional and lay audiences. These persons are to be available for talks at any time that their services may be requested by local medical societies or organized groups of lay persons.

Below is given an outline of the scope and purposes of this new bureau:

I. FUNCTION.

A. Purpose.

1. To increase the efficiency of the practitioner in Iowa.
2. To promote the solidarity of the profession.
3. To develop medical leadership in each community.
4. To educate the public in problems of health.

B. Procedure.

1. All work to be carried out through local medical units.
 - a. By members of the faculty of the School of Medicine of the State University.

- b. By members of the State Society especially qualified for certain tasks.
2. By *occasional* distinguished outside talent.
- C. Promotion.
 1. Through the JOURNAL.
 2. Through the councilors, deputy councilors and county and district officers.
 3. By field workers.

II. SCOPE.

A. Educational Activities.

1. Extension courses in medicine and surgery under the auspices of the faculty of the medical college of the State University of Iowa.
2. Clinics by the medical school faculty, Iowa doctors and guests.
3. Symposia by the medical school faculty, Iowa physicians and guests.
4. Addresses to scientific gatherings on medical economics, medical ethics, history, or other medical subjects.
5. Health talks or demonstrations to lay audiences by medical school faculty, Iowa doctors, and others.

B. Desired Affiliations.

1. State Board of Health.
2. State Medical Library.
3. State Tuberculosis and Heart Associations.
4. Hospitals and Sanatoria.
5. Red Cross and Nurses' Associations.
6. American Society for the Control of Cancer.
7. Lay Welfare Organizations.

C. Maintenance.

1. By doctors taking special extension courses.
2. County and district societies.
3. Iowa State Medical Society.
4. Contributions.

Remember that this bureau wishes to be of assistance to each individual society in solving its problems of health work. Unless aid is asked for, aid cannot be given. Write to the Speakers Bureau, Iowa State Medical Society, 1122 Bankers Trust Building, for more detailed information concerning the assistance that can be given you.

DANIEL J. GLOMSET, M.D., Chairman
THOS. U. McMANUS, M.D.
JOHN C. SHRADER, M.D.

Deputy Councilors Appointed for the Coming Year

Deputy councilors are appointed by the councilors for their respective districts in accordance with the provisions of the Constitution and By-Laws and hold office for one year. The councilors of the various districts have just completed their appointments for the ensuing year and the list is as follows:

FIRST DISTRICT

Councilor

Clyde A. Boice, Washington

Deputy Councilors

Des Moines County
John T. Hanna, Burlington
Henry County
W. A. Sternberg, Mt. Pleasant
Jefferson County
Ira N. Crow, Fairfield
Lee County
Frank M. Fuller, Keokuk
Louisa County
O. A. Kabrick, Grandview
Van Buren County
C. R. Russell, Keosauqua
Washington County
E. E. Stutsman, Washington

SECOND DISTRICT

Councilor

Anthony P. Donohoe, Davenport

Deputy Councilors

Clinton County
R. T. Leneghan, Clinton
Iowa County
Irwin Sinn, Williamsburg
Jackson County
F. J. Swift, Maquoketa
Johnson County
George C. Albright, Iowa City
Muscatine County
T. L. Wigim, Muscatine
Scott County
Anthony P. Donohoe, Davenport

THIRD DISTRICT

Councilor

Fred F. Agnew, Independence

Deputy Councilors

Black Hawk County
C. W. Ellyson, Waterloo
Bremer County
M. N. Gernsey, Waverly
Buchanan County
C. W. Tidball, Independence
Butler County
Earl C. Kepler, Allison
Delaware County
C. B. Rogers, Earlville
Dubuque County
John C. Hancock, Dubuque
Franklin County
G. T. McCauliff, Hampton
Hardin County
W. E. Marsh, Eldora
Wright County
E. C. Sage, Eagle Grove

FOURTH DISTRICT

Councilor

Paul E. Gardner, New Hampton

Deputy Councilors

Allamakee County
R. J. Eischeid, New Albin
Cerro Gordo County
W. E. Long, Mason City
Chickasaw County
Paul E. Gardner, New Hampton
Clayton County
J. W. Hudek, Garnaville
Fayette County
C. D. Mercer, West Union
Floyd County
F. H. Fillenwarth, Charles City.
Howard County
Wm. A. Bockoven, Cresco
Mitchell County
T. S. Walker, Riceville
Winnebago County
A. F. Fritchen, Decorah
Worth County
S. S. Westly, Manly

FIFTH DISTRICT

Councilor

Aaron C. Conaway, Marshalltown

Deputy Councilors

Benton County
J. E. Luckey, Vinton
Cedar County
E. J. Van Metre, Tipton
Grundy County
M. H. Thielen, Grundy Center
Jones County
T. M. Redmond, Monticello
Linn County
L. M. Downing, Cedar Rapids
Marshall County
R. S. Grossman, Marshalltown
Tama County
A. A. Pace, Toledo

SIXTH DISTRICT

Councilor

Samuel T. Gray, Albia

Deputy Councilors

Davis County
H. C. Young, Bloomfield
Jasper County
J. W. Billingsley, Newton
Keokuk County
A. P. Johnson, Sigourney
Mahaska County
George H. Clark, Oskaloosa
Monroe County
T. A. Moran, Melrose
Poweshiek County
E. E. Harris, Grinnell
Wapello County
C. B. Taylor, Ottumwa

SEVENTH DISTRICT

Councilor

John H. Peck, Des Moines

Deputy Councilors

Dallas County
G. P. Elvidge, Perry
Madison County
C. B. Hickenlooper, Winterset
Marion County
C. S. Cornell, Knoxville
Polk County
Harold J. McCoy, Des Moines
Story County
E. B. Bush, Ames
Warren County
E. E. Shaw, Indianola

EIGHTH DISTRICT

Councilor

James G. Macrae, Creston

Deputy Councilors

Adams County
W. F. Amdor, Carbon
Appanoose County
E. E. Bamford, Centerville
Clarke County
G. I. Armitage, Murray
Decatur County
B. L. Eiker, Leon
Fremont County
A. E. Wanamaker, Hamburg
Lucas County
R. C. Gutch, Chariton
Page County
J. F. Aldrich, Shenandoah
Ringgold County
E. J. Watson, Mount Ayr
Taylor County
G. W. Rimel, Bedford
Union County
John C. Parsons, Creston
Wayne County
Ben S. Walker, Corydon

NINTH DISTRICT

Councilor

A. V. Hennessy, Council Bluffs

Deputy Councilors

Adair County
James A. Harper, Greenfield
Audubon County
Wm. H. Halloran, Audubon
Cass County
R. L. Barnett, Atlantic
Guthrie County
Clarence I. Thomas, Guthrie Center
Harrison County
Elmer J. Cole, Woodbine
Mills County
T. B. Lacey, Glenwood
Montgomery County
J. Clark Cooper, Villisca
Pottawattamie County
A. V. Hennessy, Council Bluffs
Shelby County
A. L. Nielson, Harlan

TENTH DISTRICT

Councilor

Watson W. Beam, Rolfe

Deputy Councilors

Boone County
Mark C. Jones, Boone
Calhoun County
P. W. Van Metre, Rockwell City
Carroll County
W. L. McConkie, Carroll
Crawford County
C. L. Sievers, Denison
Emmet County
W. E. Bradley, Estherville
Greene County
Ben C. Hamilton, Jefferson
Hamilton County
M. B. Galloway, Webster City
Hancock County
George E. Snearley, Goodell
Humboldt County
Asaph Arent, Humboldt
Kossuth County
W. T. Peters, Burt
Palo Alto County
H. L. Brereton, Emmetsburg
Pocahontas County
J. H. Hovendon, Laurens
Webster County
A. H. McCreight, Fort Dodge
Winnebago County
Tom Irish, Jr., Forest City

ELEVENTH DISTRICT

Councilor

William Jepson, Sioux City

Deputy Councilors

Buena Vista County
H. E. Farnsworth, Storm Lake
Cherokee County
C. H. Johnson, Cherokee
Clav County
E. E. Munger, Spencer
Dickinson County
W. E. Bullock, Lake Park
Ida County
E. S. Parker, Ida Grove
Lyon County
L. L. Corcoran, Rock Rapids
Monona County
E. C. Junger, Soldier
O'Brien County
W. R. Brock, Sheldon
Oseola County
Frank S. Hough, Sibley
Plumouth County
W. W. Larsen, Le Mars
Sac County
L. H. Jones, Wall Lake
Sioux County
D. J. Gleysteen, Alton
Woodbury County
B. A. Melgaard, Sioux City

SOCIETY PROCEEDINGS

Audubon County

The Audubon County Medical Society held a dinner meeting at Audubon, Thursday, October 2, and the following scientific program was presented: Modern Treatment of Goitre, C. B. Luginbuhl, M.D., Des Moines; Childhood Tuberculosis, John H. Peck, M.D., Des Moines. There was a one hundred per cent attendance, lively interest and a general discussion of the papers presented.

Boone-Story Society Meets

Members of the Boone and Story County Medical Societies held a joint dinner meeting at the Sheldon-Munn Hotel in Ames, Friday, October 3. Diabetes was the subject for discussion and the papers presented were: The Historic Background of Diabetes, F. H. Connor, M.D., of Nevada; and The Newer Conceptions and Treatment of Diabetes, E. B. Winnett, M.D., of Des Moines.

Cass County Annual Meeting

The regular fall meeting of the Cass County Medical Society was held in Anita, Tuesday, October 14. About twenty-five members, their wives and guests attended the banquet after which the ladies were entertained at the home of Dr. H. E. Campbell, and the physicians convened for the annual meeting of the organization. Robert J. Lynch, M.D., of Des Moines, demonstrated and explained the Sluder Tonsillectomy Technique. The following officers were elected at the business session: Dr. H. D. Hully of Griswold, president; Dr. R. M. Sorensen of Cumberland, secretary and treasurer; Dr. Hully, delegate, and Dr. James H. Maynard of Adair, alternate. The Board of Censors is composed of Dr. Earle C. Montgomery, Dr. R. L. Barnett and Dr. W. S. Greenleaf, all of Atlantic.

R. M. Sorensen, M.D., Secretary.

Cerro Gordo County

The Cerro Gordo County Medical Society held its regular meeting at Eadmar Hotel on Tuesday, October 28. A six-thirty dinner preceded a brief business meeting followed by a scientific program. Victor E. Levine, M.D., Professor of Biochemistry, Creighton University School of Medicine, gave an address on Newer Methods in the Treatment of Acidosis. This was a very good paper and brought out many facts that had not been considered before.

T. E. Davidson, M.D., Secretary.

Clinton County

Howard L. Beye, M.D., head of the Department of Surgery at the State University of Iowa, and C. W. Baldrige, M.D., assistant professor of Theory and Practical Medicine, furnished the scientific program

for the September 30 meeting of the Clinton County Medical Society.

Dallas-Guthrie Society Annual Meeting

Dr. W. V. Thornburg of Guthrie Center, was elected president of the Dallas-Guthrie County Medical Society at the regular annual meeting held at Panora, Thursday, October 23. Other officers are: Dr. S. T. Foster of Adel, vice president and Dr. S. J. Brown of Panora, secretary and treasurer.

Des Moines County

Channing G. Smith, M.D., of Granger, president-elect of the Iowa State Medical Society was the speaker of the evening, taking for his subject, Medical Economics. An added feature of the program was the showing of a new film on cancer, prepared by Dr. Warren Lewis, of Johns Hopkins University. Mr. Vernon D. Blank, managing director of the State Society, spoke briefly upon legislative matters, law enforcement and public health work.

Fayette County

Friday, October 10, the Fayette County Medical Society met in Oelwein for a dinner meeting. John H. Peck, M.D., furnished the scientific program, speaking on history, diagnosis, and examination of tuberculous patients.

Johnson County

The Johnson County Medical Society held its annual meeting at Oakdale, Wednesday, November 5. After the six o'clock dinner, the following program was presented: Tuberculous Empyema, James P. Clark, M.D., Iowa City; Results Obtained Following Thoracoplasty for Pulmonary Tuberculosis, William Spear, M.D., Oakdale. Arthur Steindler, M.D., of Iowa City, just returned from a trip to Europe, spoke on the Present Day Trend Toward Socialization of Medicine.

Linn County

Members of the Linn County Medical Society met Thursday, October 9, at the Montrose Hotel, and heard C. A. Aldrich, M.D., of Winnetka, Illinois, associate physician at the Children's Memorial Hospital in Chicago, present The Treatment of the Acute Cerebral Complications in Nephritis in Children. Following the program a buffet luncheon was served.

Louisa County Annual Meeting

Officers for the coming year were elected as follows at the meeting of the Louisa County Medical Society held in Letts, Thursday, October 16: Dr. O. A. Kabrick of Grandview, president; Dr. E. R. King of Letts, vice president; and Dr. L. E. Weber of Wapello, secretary and treasurer.

Lucas County

Chariton dentists were guests of the Lucas County Medical Society at a noon luncheon held Tuesday, October 7.

Marion County

A joint meeting of the Marion County Medical Society and the Marion County Veterinary Medical Society was held in Knoxville, Tuesday, October 28. After the six-thirty dinner served to the fifty physicians and veterinarians, a symposium on undulant fever was presented with the following speakers: F. M. Roberts, M.D., Knoxville; C. J. Scott, D.V.M., Knoxville; H. J. Shore, D.V.M., Fort Dodge; and Howard A. Lanpher, M.D., Des Moines. Guests at the meeting were: Dr. William A. Rohlf, of Waverly, president of the Iowa State Medical Society, J. I. Gibson, D.V.M., of Des Moines, past president of the Iowa Veterinary Medical Society and A. H. Quinn, Jr., D.V.M., of Des Moines.

Marshall County

Thirty members of the Marshall County Medical Society met for a six-thirty dinner and program Tuesday, September 30 at State Center. L. L. Bowie, M.D., of Zealring, presented a case of aneurism for examination and A. D. Woods, M.D., of State Center, read a paper on Infections of the Ear. Two sets of moving pictures were shown, one illustrating the action of various drugs on the digestion and the other showing the anatomy of the abdominal cavity.

Polk County

The Des Moines Academy of Medicine and Polk County Medical Society held their regular monthly meeting at the Hotel Fort Des Moines, Tuesday evening, October 28. The program was presented by Walter D. Abbott, M.D., who spoke on Surgical Relief of Intractable Pain, and Lee Forrest Hill, M.D., who presented Splenectomy in Children. Both papers were very well delivered. Lantern slides added to the descriptive values of both lectures. Dr. Abbott's paper was discussed by Drs. Oliver J. Fay and H. B. Henry. Dr. Hill's paper was discussed by Drs. Julius S. Weingart, Dennis H. Kelley, Walter L. Bierring, and Harry A. Collins. Approximately sixty members and guests attended the meeting.

L. K. Meredith, M.D., Secretary

Scott County Meetings

Albert H. Montgomery, M.D., of Rush Medical College, was the speaker of the evening at the regular monthly meeting of the Scott County Medical Society held Tuesday, October 7. Dr. Montgomery spoke on Appendicitis in Children. Tuesday, November 4, the November meeting was addressed by C. W. Baldridge, M.D., of Iowa City, who took for his subject, Recent Developments in Diseases of the Blood Forming Organs.

Tama County

Dr. H. J. von Lackum was host to the members of the Tama County Medical Society and their wives,

at a dinner served in Dysart, Friday, October 10. At the meeting which followed the dinner, J. F. Gerken, M.D., of Waterloo, spoke on Infantile Paralysis.

Washington County Meetings

M. E. Barnes, M.D., of Iowa City, furnished the program for the meeting of the Washington County Medical Society, Tuesday, October 7, taking as his subject Preventive Medicine at Home and Abroad.

The Washington County Medical Society held its regular monthly meeting, Tuesday, November 4th, at 7:30 P. M. F. J. Rohner, M.D., of Iowa City, gave the address of the evening on Pernicious Anemia. An interesting discussion followed. Nineteen physicians were in attendance.

At a business meeting following the program, Dr. C. A. Boice, delegate to the State Medical Society, tendered his resignation as delegate, since it conflicts with his duties as Councilor for this district. The resignation was accepted and Dr. W. L. Alcorn was elected as delegate instead.

W. S. Kyle, M.D., Secretary.

Webster County Meetings

The Webster County Medical Society met Tuesday, October 7, at 8:30. The speaker of the evening was Fred M. Smith, M.D., head of the Department of Internal Medicine at the University Hospital, Iowa City. His subject was Studies in Gastric Pain. This paper was well illustrated and dealt with experimental and clinical work done in regard to pain in the abdomen. Following the paper there was a liberal discussion. The meeting was very well attended by the members of the society and there were several guests from outside our own county.

Members of the Webster County Medical Society met on Tuesday evening, October 28. The meeting was held in the class room at St. Joseph's Mercy Hospital. The president of the society introduced the speaker of the evening, L. L. Davidson, M.D., of Lake City. The subject of Dr. Davidson's paper was Peritoneal Absorption. The paper was illustrated with slides and dealt with experimental work on absorption from the peritoneal cavity. The points discussed were very interesting and the new ideas brought out should cause much serious deliberation on this subject.

John C. Shrader, M.D., Secretary

Woodbury County

Members of the Woodbury County Medical Society met for their regular monthly meeting, Tuesday, October 28, at the Elks Club. After the six-thirty dinner, Dr. B. B. Courshon discussed the gratuitous vaccination of the poor, and Mr. Vernon D. Blank, managing director of the state society spoke briefly on problems of medical legislation. The scientific program was presented by Lawrence E. Pierson, M.D., of Sioux City, who read an interesting paper on Intravenous Pyelography. A moving picture film, Traumatic Surgery of the Extremities, was shown by courtesy of Davis & Geck Company.

Roscoe Jepson, M.D., Secretary

Austin Flint-Cedar Valley Medical Society

The fall meeting of the Austin Flint-Cedar Valley Medical Society convened in Charles City, Tuesday, October 7, for an all day meeting beginning at 10:00 A. M. The morning program was as follows: Cerebrospinal Meningitis, J. W. Macy, M.D., of Parkersburg; Surgery of Pulmonary Tuberculosis, Ray A. Fox, M.D., of Charles City; Observations Abroad, L. D. Jay, M.D., of Waverly. The afternoon session began at 2:00 P. M. and included Medical Economics, Channing G. Smith, M.D., of Granger; Some Phases of Infant Feeding, Fred Moore, M.D., of Des Moines; Aortitis, illustrated with lantern slides, W. D. Runyan, M.D., of Sioux City; An Orthopedic Clinic, H. W. Meyerding, M.D., of Rochester; and Nervous Indigestion, A. A. Schultz, M.D., of Fort Dodge.

Northwest Iowa Medical Society

Wednesday, October 29, members of the four northwestern Iowa counties met in Sheldon for the regular fall meeting of the organization. Speakers on the program were: B. A. Melgaard, M.D., of Sioux City, Clinical Diagnosis in Disease of Infancy; S. D. Carney, M.D., also of Sioux City, Fractures of the Skull; and E. D. Plass, M.D., of Iowa City, Management of Normal Labor.

Southeast Iowa Medical Association

One hundred physicians of southeastern Iowa were guests of the Henry County Medical Society at a meeting held in Mt. Pleasant, Wednesday, October 15. The scientific program presented in the afternoon consisted of Early Diagnosis of Tuberculosis, What It Means and How to Do It, E. T. Edgerly, M.D., of Ottumwa; Some Chronic Chest Conditions Requiring Differentiation from Tuberculosis, George B. Crow, M.D., of Burlington; Hyperthyroidism, Complicating Pregnancy, F. H. Falls, M.D., professor of obstetrics, University of Illinois; A Consideration of Hyperthyroidism, Post Operative Results in One Hundred Cases, Paul A. White, M. D., of Davenport. Edwin G. Bannick, M.D., of Rochester, was the guest speaker at the evening banquet and took for his subject, The Diagnosis and Treatment of Nephritis.

AUXILIARY NEWS

Dallas-Guthrie Auxiliary

The auxiliary of the Dallas-Guthrie County Medical Society held a regular quarterly meeting on Thursday, October 23, at Panora, with a large percentage of the membership present. At noon a three course dinner was served at the hotel where the ladies joined the doctors as guests.

After dinner the auxiliary met in the Woman's Club Rooms and the meeting was called to order by the president, Miss Thora M. Brookings. Community singing was followed by a short business meeting. A committee on membership drive was appointed. Plans for the January and April meetings were discussed with special features introduced. The first speaker of the afternoon, Dr. Channing Smith, of Granger, Iowa, president elect of the Iowa State Medical Society, was

then presented and spoke on medicine in general and its application to the work of the auxiliary as an aid to the medical profession.

Dr. Lawrence D. Smith, of Des Moines, took for his topic, Lumps (or tumors) and stressed the importance of action on the earliest discovery of growths. Dr. Arnold M. Smythe, of Des Moines, addressed the assembly on Tuberculosis in Children. Mrs. E. L. Bower, of Guthrie Center, president of the state auxiliary was present and joined in a discussion of auxiliary work. The next meeting will be held on the third Thursday in January, at Adel.

Thora M. Brookings, President.

Polk Auxiliary

Mrs. Frank Ely entertained the members of the Women's Auxiliary of the Polk County Medical Society at her home on October 12, at 2:30 P. M. Mrs. Oliver J. Fay and Mrs. Eli Grimes related interesting experiences of summer travels. The auxiliary had as guests, the wives of physicians attending the meeting of the Medical Society of the Missouri Valley.

INTERESTING NEWS

In Brief

It has been recently announced that the University of Iowa will inaugurate a new health board for the purpose of safeguarding and protecting public health in Iowa City. The board will attempt by vaccination and quarantine to eliminate or control communicable diseases. They will conduct suitable investigation of establishments dealing in foods and will, at the beginning of each University session, conduct a thorough physical examination of each new student. The personnel of this board includes, Dean Henry S. Houghton of the college of medicine, Dean Carl E. Seashore of the graduate college, Robert E. Rienow, dean of men; Dr. Fred Smith, Elizabeth Halsey, director of physical education for women; Edward H. Lauer, director of athletics and Dr. Barnes.

A railroad car equipped with X-ray and other apparatus to be used for physical examination of employees engaged in train operation and applicants for this service has just been completed by the Milwaukee road.

This car was conceived by the chief surgeon for the road, Dr. A. R. Metz, as a means of promoting efficiency in the physical examination of the employees. It will be placed in service immediately and will be used over the entire system to supplement the work performed by the road's physicians and surgeons. Examining rooms, a first aid room, a record room and full X-ray equipment will be provided.

At a recent joint meeting of the Missouri State Hygiene Association and the National Society for the Prevention of Blindness it was stated that 8,000,000 people in the United States today are suffering from syphilis in a transmissible form; that twenty-three per cent of the patients in the Harvard Neuropathological Hospital gave a positive reaction to syphilis while in a Philadelphia general hospital 26.45 per cent

reacted positively. Insurance companies find that about one-fourth of one per cent of their applicants admit having had syphilis. Ten thousand Iowans were treated in state clinics for syphilis in Iowa City last year.

The Clay county board of supervisors will be petitioned at an early date, to call an election to vote upon the question of bonding the county in the amount of \$75,000 for a county hospital to be located at Spencer. Business men and other citizens of Spencer have subscribed \$10,000 for the building site. The proposed plan will call for a hospital to accommodate thirty beds.

Dr. Ellis McDonald, director of cancer research of the medical school of Pennsylvania has recently reported to the American Chemistry Society at their Cincinnati convention that an extensive experiment continued through the past eight months with the Coffee-Humber treatment for cancer has shown the treatment to have no beneficial effects.

During the past two weeks the necessary organization work for the new \$20,000 hospital for Audubon, Iowa, has been completed and an initial sum of \$5,000 has been raised. If the promoters of this work are successful in raising \$20,000, an additional \$20,000 will become available through the will of the late Charles Van Gorder.

Under a contract held by the Council Bluffs City Medical Society for the care of the indigent in Pottawattamie county during a period between May 6th and September 6th, 325 patients were given medical care. A total of 2,730 visits were made during this period and 125 patients hospitalized.

Under the County Health Unit in Washington county, classes in home nursing have been organized in some of the high schools. This work is intended to promote a higher standard of nursing care in the homes of these students.

The Peoples Hospital of Independence, Iowa, has recently received a donation of \$9,500 to establish a home for convalescents. This fund will be used in completing a third unit of the hospital.

Plans are completed for \$500,000 addition to Mercy Hospital, Davenport, Iowa. The wing will be a five story addition to the south of the present hospital building.

PERSONAL MENTION

Dr. Charles F. Snopek, of Creston, will be in Philadelphia for the next year taking postgraduate work in surgery at the University of Pennsylvania.

Dr. J. H. Gasson, formerly of Bedford, has located in Red Oak where he will continue the practice of medicine and surgery.

Dr. F. D. Jacobs, of the Newton Clinic, has moved

to Kellogg where he will take the place of Dr. Thomas D. Wright, who is returning to Newton.

Dr. F. F. Winsell, of Fairfield, announces the association of Dr. Ludwig Gittler with him in the practice of medicine. Dr. Gittler is a graduate of a German university and specializes in X-ray and physiotherapy work.

Dr. H. W. Rathe addressed the Waverly Rotary Club, Thursday, October 2, on "Why Doctors Ask So Many Questions When a Patient Comes to the Office."

Dr. Julia Ford Hill, formerly of Des Moines and Iowa City, has left for Baltimore, Maryland, where she will continue her studies at Johns Hopkins Medical School and Phipps Institute of Juvenile Research.

Dr. B. J. Dillon has recently moved his family and practice from Waterville to Waukon.

Dr. Granville Ryan, of Des Moines, addressed the students of the Capital City Commercial College, Friday, October 17, stressing the importance of early diagnosis and treatment of cancer and tuberculosis.

Dr. Kenneth V. Francis has recently been appointed psychiatrist at the University of Iowa, according to an announcement made by President Walter A. Jessup. Dr. Francis comes from the University of Chicago, where he has been an associate professor in psychiatry.

Dr. Edward J. Mulholland, who has practiced medicine in Livermore for five years, has left for Cleveland, Ohio, where he has accepted a surgical position in the Marine Hospital.

Dr. Julius S. Weingart, of Des Moines, addressed the local Y. M. C. A. Forum Club, Monday, November 10, on "Modern Medicine."

Dr. A. H. Dulmes, a recent graduate of the Northwestern University Medical School, is coming to Grundy Center to be associated with Dr. Henry L. Mol. Dr. Dulmes has served a year's internship at St. Mary's Hospital in Madison, Wisconsin, and just recently has been taking postgraduate work in the Children's Hospital in Chicago.

Dr. C. J. Snitkay addressed the annual meeting of the fifth district of the Iowa Federation of Women's Clubs, in Toledo, October 21, on the subject "Building for Health."

Dr. Dallas D. Davis, of Pender, Nebraska, has purchased the equipment and hospital of the late Dr. R. R. Gingles and plans to move to Onawa immediately.

Dr. Howard A. Lanpher, of Des Moines, spoke to the members of the Jefferson Rotary Club on "Preventive Medicine," explaining the work of the State Department of Health in combating contagious diseases.

Dr. E. B. Kenner, formerly of Houston, Texas, has located in New Market for the practice of medicine.

Dr. Eli Browning, of Burlington, gave an address at a recent two day demonstration clinic held in Chicago, on the removal of tonsils by bloodless surgery.

Dr. A. A. Johnstone is returning to Keokuk to practice medicine. Dr. Johnstone graduated from the College of Medicine of the State University of Iowa in

1928 and for the past two years has been serving his internship in the Harper Hospital, Detroit, Michigan.

Dr. E. T. Edgerly, of Ottumwa, discussed "Early Diagnosis of Tuberculosis, What It Means and How to Do It," at a meeting of the Southeastern Iowa Medical Society held in Mt. Pleasant, October 8.

Dr. R. N. Reuber, who for the past twelve years has been practicing at Sheffield, has located in Mason City.

Dr. E. M. Myers, of Boone, was the speaker of the evening at a recent meeting of the Boone Rotary Club. His address was "The Spirit of Nursing" and was a part of the county hospital program carried out by the organization.

Dr. A. H. DeLano, who has been practicing medicine in Lone Tree for forty-two years is moving his office equipment to his home where he will be in the future. He is not completely retiring from the profession, but he will not maintain a downtown office.

Dr. George Donohoe, superintendent of the Iowa Hospital for the Insane at Cherokee, discussed the subject "Why Our State Insane Hospitals Are Crowded," in a talk before the Sioux City Lions Club, Wednesday, October 8.

Iowa physicians who attended the recent meeting of the Inter-State Postgraduate Medical Association held in Minneapolis, October 20-24, included: Dr. L. E. Hooper of Indianola, Dr. S. J. Lewis of Columbus Junction, Dr. D. H. Hopkins, Glidden, and Dr. J. L. Ravitts of Montezuma.

Several Iowa surgeons were in Hot Springs, Arkansas, October 15 and 16, attending the annual convention of the Rock Island Surgeons Association. They were: Dr. Robert Davisson of Winterset, Dr. J. W. Pence of Columbus Junction, Dr. J. P. Mathias of Manchester, Dr. John Hanna of Burlington, Dr. F. B. Dorsey of Keokuk, Dr. F. E. Vance of Eddyville, Dr. H. E. Campbell of Anita, and Dr. O. F. Parish of Grinnell.

Seven Iowa surgeons were honored recently by receiving the degree of fellowship in the American College of Surgeons at their meeting held in Philadelphia during the week of October 12-18. The new members are: Dr. Frank N. Bay of Albia, Dr. J. F. Chalmers of Fort Madison, Dr. H. F. Dolan of Anamosa, Dr. E. B. Howell of Ottumwa, Dr. L. D. Jay of Waverly, Dr. E. M. Kersten of Fort Dodge, and Dr. H. A. Spilman of Ottumwa.

MARRIAGES

Miss Hazel Frieden and Dr. I. C. Jerdee, both of Clermont, were married Saturday, October 4, at the home of the bride's parents. After the wedding the couple left by automobile for a trip to Chicago and Madison, Wisconsin. They will be in New Orleans for several weeks while Dr. Jerdee is taking a postgraduate course and expect to be at home in Clermont about the first of December.

Miss Florence McIlroy, of Omaha, and Dr. J. James Duffy, of Denison, were married in Missouri Valley, October 30.

DEATH NOTICES

Lowder, Rosa Ellen, of Maquoketa, died July 28 at the age of sixty-three; graduated in 1894 from the Medical College of Indiana. At the time of her death she was a member of the Jackson County Medical Society.

Shafer, Almon S., of Columbia, died September 25 at Solon Springs, Wisconsin, at the age of seventy-two of carcinoma of the prostate; graduated in 1889 from the State University of Iowa College of Medicine. He had been a member of the Marion County Medical Society.

Fulton, J. M., of Audubon, died suddenly at his home, Tuesday, November 4, as a result of heart trouble. He was sixty-five years old, graduated in 1896 from the Chicago Homeopathic Medical College. At the time of his death he was a member of the Audubon County Medical Society.

PROMINENT MINNEAPOLIS PHYSICIAN ADDRESSES IOWA TUBERCULOSIS ASSOCIATION

J. A. Myers, M.D., Ph.D., of Minneapolis, noted specialist in childhood tuberculosis and president of the Minnesota Public Health Association, will be the principal speaker at a luncheon meeting under the auspices of the Iowa Tuberculosis Association at the Fort Des Moines Hotel here Friday noon, Nov. 14th.

"The Health of the School Child" will be the subject of Dr. Myers' talk. He will be introduced by Dr. John H. Peck president of the state association. It is expected that Governor-elect Dan W. Turner will also make a few remarks.

Following the luncheon program the semi-annual meeting of the board of directors and Christmas seal chairmen of the state association will be held.

Dr. Myers will be the guest at an evening dinner meeting attended by Des Moines physicians who are especially interested in children's diseases, juvenile heart disease and childhood tuberculosis. Later in the evening Dr. Myers will address a special meeting of the Des Moines Academy of Medicine and Polk County Medical Society.

THE 1930 GOETHE PRIZE

The 1930 Goethe Prize, endowed by the city of Frankfurst-on-Main in honor of its famous son, has been conferred upon Sigmund Freud of Vienna. The recipient was unable to attend the presentation ceremonies on account of illness, but was represented by his daughter, Anna, who is his most ardent co-worker. The presentation of the prize was made in the presence of a large and distinguished literary and scientific gathering by Mayor Landmann, who stated that the selection of Freud had been made because of the relation between his investigations and literature. The prize has a cash value of \$2,500.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

DR. WILLIAM JEPSON, Sioux City
DR. FRANK M. FULLER, Keokuk

DR. ARTHUR D. WOODS, State Center
DR. WALTER L. BIERRING, Des Moines
DR. NORMAN F. MILLER, Iowa City

The First Medical Directory of Iowa

Among the book treasures in the Fairchild collection of the Iowa State Medical Library, is a copy of the Medical and Surgical Directory of the State of Iowa, by Charles H. Lothrop, M.D., published at Lyons, Iowa, in 1876.

This, the first work of its kind published in the state, is of distinct historical interest in connection with Iowa medicine of half a century ago. In the preface it was stated that unsparing efforts were made to have it complete in every respect, and in acknowledging the assistance of more than one hundred physicians, indicated the general interest on the part of the profession in formulating this directory. In this list are many names that took a prominent part in the medical proceedings of that period.

The several state, county and district societies are listed with a brief outline of their organization, and the membership of each in the year 1876. The names of the officers of the Iowa State Medical Society from the date of organization to the year of publication are given, and this alone will be of great value for historical reference. The Iowa State Medical Society at this time was composed of representatives from the following county societies: Clinton, Dallas, Davis, Des Moines, Fayette, Fremont, Hardin, Johnson, Keokuk, Linn, Louisa, Madison, Mahaska, Marshall, Monroe, Muscatine, Mitchell, Marion, Polk, Poweshiek, Scott, Story, Wapello, Warren; two special city societies—Iowa City and Sioux City, and six district societies—Cedar Valley Medical Society, Des Moines Valley Medical Association, Iowa Central Medical Association, Iowa and Illinois Central District Medical Association, Northern Iowa Medical Society, and Upper Cedar Valley Medical Association. Two hundred and thirty-two physicians are listed as permanent members of the Iowa State Society.

The Code of Ethics of the American Medical Association was published in full, as well as the names of the permanent members from the state

of Iowa, showing that there were forty-five Iowa physicians belonging to the national association.

In addition to the six district medical organizations represented in the State Medical Society, three additional district associations had also been organized: The Botna Valley Medical Society, Central District Medical Association of Iowa, and the Southwestern Iowa Medical Association. Of the nine district societies, the Northwestern Iowa Medical Association organized in 1859 was the oldest. The Des Moines Valley Medical Association organized in 1873, had the largest membership—seventy-one members.

There were twenty-eight organized county societies in 1876, and the officers and members of each society are listed in the directory. Several errors are noted in the time of organization. The Polk County Medical Society was the first county society organized in the state, according to the copy of the "*Iowa Star*," Fort Des Moines, Vol. 2, No. 50, which publishes the account of the organization meeting on Nov. 13, 1851. The date given in the Directory, May 26, 1858, probably refers to a reorganization meeting.

The Keokuk City (Lee County) Medical Society was organized in 1852, instead of 1863, as given in the directory. It is noted that in Johnson County a second society was organized in 1876, called the Iowa City Medical Society, the officers of which were all teachers in the State University Medical College. The Sioux City Medical Society later became the Woodbury County Medical Society.

Listed in this directory is a complete roster of the Iowa State Homeopathic Medical Society, and the Iowa State Eclectic Medical Society, the former having been organized in 1870 and the latter in 1868. The Homeopathic State Society had a membership of fifty-eight, and there were thirty-nine members in the State Eclectic Society.

The Code of Ethics of the American Institute of Homeopathy is published in full and covers

fifteen pages. This is a very dignified statement of principles, and in keeping with the highest standards of medical practice. In marked distinction to the foregoing, is the Code of Ethics of the National Eclectic Medical Society which comprises the following two articles:

"Article 1. The interests and rights of medical men are as dear to them as are those of any other class of citizens in this republic. They are entitled by the Constitution of this great Union to the same freedom and privileges in moral, social, political and civil life, as are individuals pursuing any other vocation; and any associations or rules which would deprive them of the least portion of these rights and privileges are unwarranted usurpations, contrary to the spirit and intent of our American government, and, consequently, of no force in law or custom.

"Article 2. The common rules and maxims of morality which are enjoined in the Bible, and have been recognized by the wise and virtuous at all times, and in every civilized country, are comprehensive enough in their scope, and sufficiently dignified in form, to meet all the contingencies and emergencies which in a moral point of view are likely to arise in the transaction of business and the interchange of thought and sentiment between man and man."

In 1876 there were two Homeopathic District Societies, viz: the Northeastern Iowa Homeopathic Medical Society and the Hardin County Homeopathic Association.

A roster of the United States Examining Surgeons for Pensions for the State of Iowa, indicates that in 1876 there were 110 United States examining surgeons in the state.

A full description is given of the two medical schools in Iowa, viz: the College of Physicians and Surgeons, Keokuk, Iowa, (formerly Medical

Department of the State University) organized in 1849, and the Medical Department of the Iowa State University established in 1869, with details of organization, faculty members, courses of instruction and requirements for graduation.

The two Iowa Hospitals for the Insane at Mount Pleasant and Independence are described, as well as the Iowa Institution for the Deaf and Dumb at Council Bluffs, Iowa College for the Blind at Vinton, and the Iowa Soldiers' and Orphans' Homes at Davenport and Cedar Falls. Mercy Hospital at Davenport and Iowa City, are also listed with the attending staffs of each.

Under the head of miscellaneous, the following subjects are included: Law in Relation to Practical Anatomy, which provided for dissection teaching material; Law in Relation to Expert Testimony, which permitted additional compensation for expert professional testimony; Law in Relation to Professional Confidence; Medical Tramps, which referred to itinerant practitioners and required a special license in each instance. The Hippocratic Oath is given in full, as well as the Hippocratic Law. The concluding subject is entitled — "Reminiscences of Pioneer Practice," furnished by Dr. Frederick Andros, of McGregor, Clayton County, Iowa.

He was styled the "Pioneer Physician of the State," having received his degree of medicine from the Medical Department of Brown University, Providence, Rhode Island, in 1824, and began the practice of medicine in the Territory of Iowa in 1833. His reminiscences consisted of an entertaining and interesting description of five cases. Evidently his contact with quacks and charlatans had developed a rather pessimistic philosophy as shown by the closing words: "Far be it from me to ignore the medical profession as it *should be*, but as it is, quackery rides tri-

THE MEDICAL AND SURGICAL DIRECTORY OF THE STATE OF IOWA.

CONTAINING THE NAMES, POST OFFICE ADDRESS AND PROFESSIONAL STATUS OF
THE PHYSICIANS; THE VARIOUS MEDICAL SOCIETIES, WITH NAMES AND
RESIDENCE OF THE OFFICERS AND MEMBERS; A LIST OF MEM-
BERS OF THE AMERICAN MEDICAL ASSOCIATION FROM
IOWA; A ROSTER OF U. S. EXAMINING SUR-
GEONS FOR PENSIONS FOR THE STATE.

A L S O

THE CODE OF ETHICS OF THE AMERICAN MEDICAL ASSOCIATION, OF THE AMERICAN
INSTITUTE OF HOMEOPATHY, AND OF THE NATIONAL ECLECTIC MED-
ICAL SOCIETY; MEDICAL COLLEGES AND CHARITABLE INSTITU-
TIONS, HOSPITALS, SOLDIERS ORPHANS, HOMES, ETC.,
MEDICAL LAWS, REMINISCENCES OF PIONEER
PRACTICE, ETC.

BY CHARLES H. LOTHROP, M. D

LYONS, IOWA:
J. C. HOPKINS, PRINTER,
1876.

umphant, and it seems that the sovereign people love to be humbugged. In the present state of feeling, no law can be passed by our legislature for the suppression of quackery any more than for a dog tax. The lawyer is protected in his profession by statutes, not so the educated physician. The quack is equal, in the eye of the law, to him who has spent years in his profession. Once the title of M.D. was honorable. What is it now?"

The latter part of the Register comprises a complete list by counties of all practitioners in Iowa, giving name, address, place and date of graduation, school of practice, titles of papers read before medical societies or published in medical journals, and notices of important surgical operations, as well as the population of each county, taken from the state census of 1875. According to this list there were 1,946 practitioners of all kinds engaged in some form of healing art in Iowa fifty-four years ago.

Other interesting features in this unique publication are the advertisements which clearly indicate the march of time and medical progress. A. M. Leslie & Co., of St. Louis, refer specially to "Leslie's improved physicians saddle bags, as the most complete, compact and durable bags in the market, also the cheapest." James W. Queen & Co., of Philadelphia, advertise microscopical accessories, axilla thermometers, ophthalmoscopes, urinometers, and laryngoscopes. Several firms stress principally portable electrical instruments and batteries. D. Appleton & Company, Publishers, New York City, advertise the New York Medical Journal, then in its twenty-second volume. Three medical schools are listed under advertisements, viz: Bellevue Hospital Medical College, City of New York, Woman's Hospital Medical College of Chicago, and Chicago Medical College (Medical Department of the Northwestern University). The faculties as published included many distinguished names in American medicine of this period.

The advertisements of Parke, Davis & Company, Manufacturing Chemists, Detroit, cover four pages. Some of the local advertisements present interesting features. Included in many of the druggist's announcements is the following "Pure Wines and Liquors," as well as Paturet & Co.'s Swedish Leeches, reliable vaccine virus, French artificial eyes, books and stationery, paints, oils, toilet articles and patent medicines. A very ethical advertisement is that of "Geo. H. Schafer & Co., established 1847, Wholesale Druggists and Manufacturers of True Pharmaceuticals, Ft. Madison, Iowa." Now this firm name is connected with a fountain pen that is known throughout the world. A number of law firms, several banks,

hotels and two railroads—the Central R. R. of Iowa, and the Burlington C. R. & Minn. R. R. are listed among the advertisers.

The future historian will regard this first "Medical Directory" as an epoch making publication in the development of Iowa medicine.

W. L. B.

OBITUARIES

CHARLES BOWER POWELL 1849-1930

Dr. Charles Bower Powell died at his home in Albia, Iowa, August 14, 1930. He was born July 20, 1846, at Fredericktown, Washington County, Pennsylvania. He was graduated in 1870 from the Eclectic Medical College, Cincinnati, and in 1882 from the College of Physicians and Surgeons, Keokuk. Dr. Powell was located at Russell, Lucas County, Iowa, for fourteen years and since 1884 has lived at Albia, Iowa.

While attending the annual meeting of the Iowa State Medical Society at Des Moines in 1925, he was stricken with apoplexy from which he never recovered and his death was due to this attack. Dr. Powell was very active in several medical societies and one of the prominent and best known physicians in southern Iowa. He had been surgeon for the Burlington and Wabash railroads since 1886. He was a member of the Des Moines Valley Medical Society and for a long time a member of the local library board. He also served about twenty years on the school board of which he was president for a number of years. Dr. Powell was a member of the United States Examining Board for Pensions from the time of its organization in 1886, until 1925, when he resigned on account of failing health.

The following resolution was passed by the Monroe County Medical Society at its meeting September 11, 1930:

We, the members of the Monroe County Medical Society, sincerely regret the passing of Dr. C. B. Powell, August 14, 1930.

He was a charter member of this organization. He served faithfully in the various offices and was its first president. He gave much of his time and ability for the welfare of the county society and was always present at its meeting until his failing health made it impossible for him to attend.

We feel the loss of a congenial and courteous fellow worker, a splendid physician, a fine surgeon, and a high type gentleman.

Dr. Powell was much admired by members of this society and held the highest respect of the people of this community. He maintained a fine spirit of kindness and helpfulness to all physicians during his whole life.

We express our deepest sympathy to our fellow member, Dr. Burke Powell, in the loss of his father, and to Mrs. Jessie Prizer who so kindly and faithfully cared for her father during his long illness.

We admire the many fine qualities of Dr. Powell



and appreciate the worth of the long active life devoted wholly to the interests and welfare of this community.

Respectfully submitted by

C. N. Hyatt.
T. A. Moran.
S. T. Gray.

LEONARD WOOD MEMORIAL

It has been stated upon authority that there are 3,000,000 lepers in the world today, and of this number 15,000 are in leprosim in the Philippine Islands. The greatest leper colony in the world today is one which houses 5,000 lepers, and is located in the heart of the Philippines at Culion, two hundred miles from Manila.

This situation presented such an appeal to former American Governor-General Leonard Wood, that in 1927 he returned to this country hoping to establish a fund to provide adequate equipment and personnel for scientific research work to battle this malady. His object was not accomplished prior to his death, but the work is being continued by an able group of highly interested men under the name of the Leonard Wood Memorial for the Eradication of Leprosy, honoring its founder. They hope to raise the amount of \$2,000,000 and their appeal today has met with success to the amount of \$1,800,000 now subscribed. A final appeal is now being made to raise the remaining \$200,000 required. An inquiry or donation will receive prompt attention through the office of Gen. Samuel McRoberts, 1 Madison Avenue, New York City.

THE NEW NATIONAL INSTITUTE OF HEALTH

In a recent issue of the JOURNAL, announcement was made of the creation of the new Institute of Health. An outgrowth of the old Hygienic Laboratory, the new institute will have enlarged facilities and will be devoted to investigations and researches in the field of communicable and degenerative diseases and of environmental conditions affecting health.

The Secretary of the Treasury is authorized to accept gifts to be held in trust and used for the above purpose, the expenditures to be safeguarded in all respects as are other governmental funds. The first gift announced under this authorization is from the Chemical Foundation in the sum of \$100,000.

RIGGS OPTICAL COMPANY

At a recent meeting of the Riggs Optical Company, the following officers and directors were re-elected: President, Roy M. Wahlgren; vice presidents, Arthur W. Hazen and Earle G. Wahlgren; secretary and treasurer, L. L. Lintner. The board of directors is composed of Arthur W. Hazen, John G. Hodgins, L. L. Lintner, Earle G. Wahlgren, and Roy M. Wahlgren.

The founder and former president, Mr. Elwood Riggs, who has for a number of years resided in California, is no longer connected with the company.

UNITED STATES CIVIL SERVICE COMMISSION Government Hospitals in Need of Medical Officers, Nurses, and Social Workers

The United States Civil Service Commission states that government hospitals throughout the country, including those under the Veterans' Bureau, the Public Health Service, the Indian Service, and other branches, are in need of medical officers and nurses of various grades, and that Veterans' Bureau hospitals have vacancies in positions of psychiatric social worker and junior social worker.

Full information regarding examinations, salaries, etc., may be obtained from the United States Civil Service Commission, Washington, D. C., or from the Secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city.

AN INSURANCE FRAUD

An unusual form of racketeering has been brought to attention in New York by District Attorney Fach, of Staten Island. He announced during the summer that he had obtained evidence that between forty and fifty bodies had been stolen in New York City and used to collect death benefits from insurance companies amounting to \$5,000,000. It was believed that the activity of this group was nation-wide. The grand jury given the evidence presented remained in session many weeks. Ten new indictments were returned. Illustrative of their practice, District Attorney Fach stated that the body of a man who fell from a tall building was claimed by the conspirators at the city morgue, a false name was given the man, a fraudulent insurance policy issued and the death benefits collected from the company.

PREHISTORIC BACTERIAL LIFE

During the annual session of the National Academy of Sciences held in Berkeley, California, in the third week of September, Dr. Charles Bernard Lipman, professor of plant physiology and dean of the graduate division at the University of California, demonstrated bacterial growth thought to be one hundred million years old. These bacteria were recovered from anthracite coal from the beds of Pennsylvania and Wales. When placed in a proper medium they were found to be living and reproducing readily. Additional research will be conducted to prove the antiquity of these organisms and it is thought that they may throw considerable light on the nature of life in the prehistoric time.

NEW AND NON-OFFICIAL REMEDIES

Lederle Laboratories, Inc.

Diphtheria Toxoid.

Maltine Company.

Maltine with Cod Liver Oil and Iron Iodide.
Spicer & Co.

Tartro-Quiniobine

Tartro-Quiniobine Ampules, 2 cc.

White Laboratories, Inc.

White's Cod Liver Oil Concentrate.

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

CLINICAL FEATURES OF HEART DISEASE—By Leroy Crummer, M.D.—Second Edition, revised and enlarged—Paul B. Hoeber Company, New York City.—Price, \$4.00.

*CLINICAL NUTRITION AND FEEDING IN INFANCY AND CHILDHOOD—By I. Newton Kugelmass, M.D., Ph.D., Sc.D., Associate Attending Pediatrician, Fifth Avenue Hospital, New York; Riverside Hospital; Pediatricist, Hospital for Ruptured and Crippled.—Thirty-seven illustrations—Philadelphia and London, J. B. Lippincott Company. Price, \$6.00.

*DIETETICS AND NUTRITION—By Maude A. Perry, B. S.—First Edition.—322 pages with no illustrations.—St. Louis, C. V. Mosby Company, 1930.—Price, \$2.50.

THE DOCTOR IN COURT—By Edward Huntington Williams, M.D.—A book of experiences of the expert medical witness.—With an appendix on expert testimony by Charles W. Fricke, Judge of the Superior Court, Los Angeles County, Published September, 1929.—Williams & Wilkins Company, Baltimore.

*GONOCOCCAL INFECTION IN THE MALE—By Abr. L. Wolbarst, M.D.—Second edition, completely revised and enlarged.—With 140 illustrations, including 7 color plates.—The C. V. Mosby Company, St. Louis, 1930. Price, \$5.50.

*THE PATHOLOGY OF DIABETES MELLITUS—By Shields Warren, M.D.—With a foreword by Elliott P. Joslin, M.D.—Illustrated with 83 engravings and two colored plates.—Lea & Febiger, Philadelphia, 1930. Cloth, \$3.75, net.

*Review appears in this issue.

MANUAL OF THE DISEASES OF THE EYE—For Students and General Practitioners—By Charles H. May, M. D.—Thirteenth Edition, Revised.—With 374 original illustrations, including 23 plates, with 73 colored figures.—William Wood and Company, New York, 1930.—Price, \$4.00, net.

MEDICAL EDUCATION AND RELATED PROBLEMS IN EUROPE—Commission on Medical Education.—April, 1930.

THE COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION FOR 1929—Volume XXI—Edited by Mrs. M. H. Mellish, Richard M. Hewitt, M.D., and Mildred A. Felker, B.S.—Octavo volume of 1,197 pages with 279 illustrations.—Philadelphia and London.—W. B. Saunders Company, 1930.—Cloth, \$13.00, net.

PHYSICAL DIAGNOSIS—By Richard C. Cabot, M.D.—Massachusetts General Hospital, Boston, May, 1930.—Tenth Edition, revised and enlarged, with six plates and 279 figures in the text.—(The more important new matter introduced relates to coronary disease, electrocardiography, cancer of the lung, cardiac asthma, toxic hepatitis and encephalitis lethargica.)—Publishers, William Wood & Company, New York.—Price, \$5.00, net.

RADIUM IN GENERAL PRACTICE—By A. James Larkin, M.D., D.N.B.—Illustrated—Paul B. Hoeber, Inc., New York.—Price, \$6.00.

*TRAUMA, DISEASE, COMPENSATION—A Handbook of Their Medico-Legal Relations—By A. J. Fraser M.D. Chief Officer Workmen's Compensation Board, Winnipeg.—F. A. Davis Company, Philadelphia, 1930. Price, \$6.50.

BOOK REVIEWS

GONOCOCCAL INFECTION IN THE MALE

By Abr. L. Wolbarst. Second edition.
Price \$5.50. 297 pages with 140 illustrations. St. Louis: C. V. Mosby Company, 1930.

Physicians doing general practice will appreciate the second edition of Wolbarst's Gonococcal Infection in the Male. The book will also prove of great interest to those specializing in urology. The second edition has been completely rewritten, clarifying much obscure data published in the first edition. The author is conservative in his treatment and stresses diagnosis. The reviewer is in accord with his idea that the diagnosis of a case can only be made microscopically or culturally. The author mentions favorably the use of pyridium which has but recently been introduced.

The book is extremely well written, the paper is good and the colored plates showing the urethra-scopic pictures are well chosen, concise and clear. The author tends to conform to the view that in some cases, God knows when the infection starts, and God only knows when it is through.

D. M. B.

TRAUMA, DISEASE, COMPENSATION

A Handbook of Their Medico-Legal Relations, by A. J. Fraser, M.D., Chief Medical Officer Workmen's Compensation Board, Winnipeg. Philadelphia, F. A. Davis Company, publishers, 1930. Price \$6.50.

In response to a demand for a reference guide for the handling of compensation cases Dr. Fraser has prepared this handbook. He had in mind the fact that many compensation cases must be reviewed and analyzed by physicians having little or no experience in compensation work and has for this reason attempted to furnish a viewpoint in the opening chapters of the book.

Following this general discussion he has reviewed many of the specific injuries common in industrial accidents, indicating the attitude of various compensation boards relative to that particular impairment and reviewed many of the complications common to the condition.

The volume will be of particular use to physicians doing industrial surgery.

DIETETICS AND NUTRITION

By Maude A. Perry, B. S. First edition.
Price, \$2.50. 322 pages with no illustrations. St. Louis: C. V. Mosby Company, 1930.

There are many ambiguous statements which will probably be corrected in the later editions. On page 15 a line from the book has evidently been omitted. On page 17 it is ambiguous whether the food itself is immersed in water. Page 36, the terms ptomaine poison and botulism are used loosely. Page 44, acidophilus culture is just as valuable whether prescribed by a physician or not. Page 54, the author states "In the living body all fats are liquid." This

is in variance with the usual opinion. Page 61, the author states "Water is a solvent and readily dissolves mineral and organic substances with which it comes in contact." This is not true and is too broad a statement. Page 73, "Mineral waters contain sodium chloride, alkaline salts of soda and lime." This is in variance with their usual formula. Page 74, "Scurvy results from a diet poor in vegetables, cereals and fruits." No mention is made of vitamins. Also, "Sodium is found in the blood, in phosphate and carbonate forms." No mention is made of sodium chloride until later in the paragraph. Page 76, "Gratifying results have been obtained in feeding liver and liver products in all types of anemia." This is not borne out by clinical medicine. Page 85, "Baking powders, baking sodas and other similar agents are compounds of chemical and food materials." This is not true.

Page 86, "Bacteria and micro-organisms cause molds." This is a false statement because molds are fungi. Page 94, The reviewer would question the cause of the forcing of foods through the pylorus by hydrochloric acid alone. Page 97, the statement that food may be absorbed somewhat through the stomach is questionable. Page 110, "Dextri Maltose seems to give better results than any other sugar in infant feeding." This is in variance with the experiences of some pediatricians. Page 115, "Bananas should not be given to children under four years of age." This is also at variance with medical opinion.

In the glossary the definitions are not clear. For example, "Acidosis—Acid Poisoning."

This volume evidently represents a series of lectures to nurses by a non-medically trained dietician. Most of the diets are correct and should serve as an outline in the feeding of the sick where the disease is as indicated.

D. M. B.

THE PATHOLOGY OF DIABETES MELLITUS

By Shields Warren, M.D. With a foreword by Elliott P. Joslin, M.D. Illustrated with 83 engravings and 2 colored plates. Lea & Febiger, Philadelphia, 1930. Cloth, \$3.75, net.

This is a book devoted exclusively to the pathology of diabetes and the pathology of the complications of diabetes. A foreword written by Dr. Elliot P. Joslin appropriately states, "I welcome the book which shows what my diabetics must face, or rather have faced, but now in a large measure can avoid, if they will only heed the advice of modern medicine." The report, based as it is upon a study of 300 autopsied diabetics as well as many nondiabetic controls together with tissues surgically removed, must be given thoughtful consideration in the study of the pathology of diabetes.

Chapter I discusses the evidence upon which the insular hypothesis of diabetes is based. After all the feeling expressed by Allen, "that every ana-

tomic hypothesis still requires to be assisted by assuming the existence of a certain proportion of functional cases without known anatomical basis," still holds true. The gross and histological pathology of the pancreas is described.

Few diseases associated with any one function show a wider range of pathological change as found in diabetes. This is well shown by many clear photomicrographs. Pathological evidence of abnormal carbohydrate and fat metabolism is discussed. Next the pathology of the various organs of the body influenced directly or indirectly by diabetes—skin, gall bladder, liver, etc.—is taken up and carefully analyzed. The chapter on arterial sclerosis and gangrene is interesting and instructive. It begins with the statement, "Whether the increased prevalence of arterial sclerosis in diabetes is due to the disease or to the methods of treatment of the disease is a problem that cannot be disregarded." Aschoff's modification of Virchow's imbibition theory of arterial sclerosis is discussed as well as the various types of gangrene. Because of the large number of diabetic deaths due to arterial sclerosis connected with coronary disease and cardiac injury, the chapter on the heart is of much practical interest. Sepsis, the greatest foe of insulin, is dealt with in one chapter, as is also the nervous system in diabetes.

This book is well written and is a clear-cut statement of the facts as they are now known. Problems in pathology suggested by the etiology and symptomatology that are not definitely known, are discussed from every angle in a scientific manner. The volume should be read by both internist and surgeon, because the treatment of diabetes is built around the pathology of diabetes.

E.B.W.

CLINICAL NUTRITION AND FEEDING IN INFANCY AND CHILDHOOD

By I. Newton Kugelmass, M.D., Ph.D., Sc.D., Associate Attending Pediatrician, Fifth Avenue Hospital, New York; Riverside Hospital; Pediatricist, Hospital for Ruptured and Crippled. Thirty-seven Illustrations. Philadelphia and London, J. B. Lippincott Company. Price, \$6.00.

This book is a 350 page manual of nutrition and diets for the special problems of infancy and childhood. Practical food lists and tables of calories are given for the normal child of different ages, and for the special problems as constipation, intestinal indigestion, celiac disease, dysentery, dental caries, scurvy, cyclic vomiting, diabetes, nephritis, epilepsy and eczema.

As half the practice of pediatrics is concerned with special nutritional therapy, this lately published volume will be very useful in bringing our knowledge of the newer methods of dietary treatment of children up to date.

J. E. D

The JOURNAL

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No. 12

THE SIMILAR EYE SIGNS AND SYMPTOMS IN EXOPHTHALMIC GOITER AND ENCEPHALITIS LETHARGICA

(A Clinical Observation and Etiological Suggestion)*

GEORGE FRANCIS SUKER, M.D., Chicago

Mr. President, Dr. Bailey, and Members of the State Medical Association of Iowa: I assure you it is a great privilege and honor to be the invited guest of the Eye, Ear, Nose and Throat Section, and also to participate in the program this evening.

What I have to say may not be of paramount interest or of much profit, but I trust an idea or two of the things that I wish to present may engage your attention, particularly as they are out of the ordinary; that is, not extraordinary in the true sense of the term, because you have often observed these conditions, but because you have not cognated the facts in the same line of thought that I am endeavoring to present them.

There is no intention whatsoever to discuss the question of etiology of exophthalmic goiter, nor enter upon the etiology of encephalitis lethargica as it is definitely known. It is my desire to associate certain eye signs which are of paramount interest in exophthalmic goiter with the same signs and symptoms as they appear in encephalitis lethargica. Further, proof is presented in a way to show that a large share of eye symptoms in Basedow's disease are due to something other than a disturbance of the sympathetic nervous system, which latter was usually regarded as the etiology of these eye symptoms.

A comparison of the symptomatology of the two conditions will readily show that in both instances there is a close analogy and that at the bottom of each there is a similar anatomic pathologic basis; a basis which we know is perfectly established in encephalitis lethargica but not for exophthalmos. Even in the face of the scarcity of post-mortem opportunities, there is no doubt in my mind, and perhaps not in yours, that in Basedow's disease there is generated a toxin, separate and apart per-

haps, from the generalized inefficiency or deficiency of the thyroid functioning, which causes the general ocular symptoms complex.

To my mind it is more than evident that the lid symptoms as well as the exophthalmos of Basedow's disease, are not the result of the sympathetic nerve disturbance engendered by the Basedow toxin, but that they are due, as in encephalitis, to central brain involvement. These brain centers are the aqueductus sylvius, motor nuclei or ganglion and the third ventricle. These centers have been shown at postmortem to be involved in cases of encephalitis with this Basedow lid syndrome. I wish you to cogitate on this question to see whether or not in cases of encephalitis lethargica you meet with similar exophthalmic goiter eyelid manifestations.

For years past at the Cook County Hospital I have been more or less closely watching the lid and exophthalmos conditions in these two maladies, and have come to the conclusion, independently of some investigators, that there is a close connection between the two, as far as the etiologic factor or the lesion within the calvarium which causes the two types of symptoms is concerned.

The thyroid involvement which produces hyperthyroidism and then gives you the exophthalmos is of a peculiar character, not because it is an endocrine gland affection, but the exophthalmos is not necessary for a classic Basedow's. You can have a true Basedow's disease without having any exophthalmos or can have the exophthalmos, either unilateral or bilateral, but you cannot have a hyperthyroidism without a manifestation of some disturbance in the ocular apparatus, particularly the lid and extra-ocular muscles. The intra-ocular muscles (iris and ciliary bodies) are seldom involved in a true Basedow's but are often involved in encephalitis. We never have found in our experience any conclusive case of exophthalmic goiter in which we had an enlarged pupil. If exophthalmic goiter in its manifestations in the eye were due to a hypersensitivity or hyperactivity of the sympathetic, then there would be an enlarged pupil, but the contrary is true—the pupil is usually small; for

*Presented before the Seventy-ninth Annual Session, Iowa State Medical Society, Marshalltown, Iowa, May 14, 15, 16, 1930.

stimulation of the sympathetic causes iris dilatation and paralysis causes a pupillary contraction.

Therefore, we can justly question the relationship between the sympathetic and the etiology of the eye manifestations. As far as the intra-ocular tunics are concerned in Basedow's disease, these always remain intact; not so, however, in encephalitis lethargica, which frequently gives rise to an optic neuritis, retinitis (macular) and internal ophthalmoplegia. You may have a disturbance of the vascular supply in Basedow's; a rapidity and

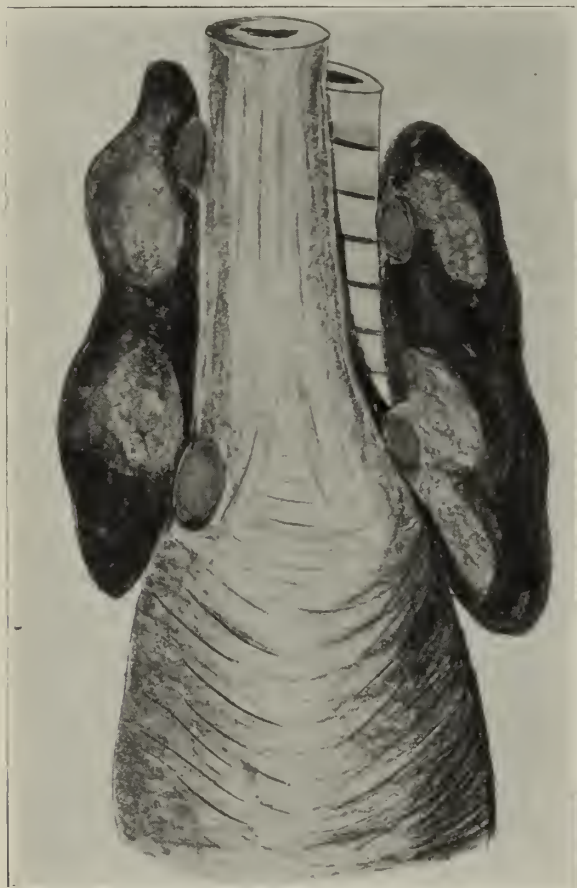
winking or the loss of the winking act; (4) the Möbius' sign, which is the inability to maintain convergence for the near point; directly upon convergence the eyes again diverge.

Each of these signs mentioned appears and has been observed in encephalitis lethargica, aside from the general symptoms that might be similar, such as restlessness and tremor. Then when any one or more of these signs is associated with mental symptoms and absence of a pronounced tachycardia, an encephalitis rather than a Basedow's is present. The tremor in the exophthalmic goiter is of a finer character than that in lethargica. The masked face is often manifested in both of them. In encephalitis it is due more or less to a facial paralysis. There is a laxity of the orbicularis, as compared with the facial muscles. In the Basedow's it is due to the protrusion of the globe and the retraction of the upper lid and the compensatory inactivity or relaxation of the facial muscle in contradistinction to the hypertonicity or activity of the orbicularis.

In addition to the above we have certain paralyses of the ocular muscles in Basedow's disease as well as in encephalitis lethargica. The paralysis of the ocular muscles, any one of the four extrinsic muscles in particular, associated with more or less of an exophthalmos on one side, is indicative of encephalitis much more so than it is of Basedow's disease. The paralysis of the extra-ocular muscle in Basedow's disease appears after the exophthalmos has become very pronounced and the orbital tissue has been excessively increased, upon the same basis as in myasthenia gravis. In other words, it is a lymphorrhagia and is based upon a thymico-lymphatic condition. The same holds true for the exophthalmos in encephalitis.

In encephalitis lethargica it is a paralysis of the muscle, giving rise to a dilatation of the iris, as the third nerve is very prone to be involved in encephalitis, not only the third supplying the extra-ocular muscles, but also the intra-ocular. Stimulation of the sympathetic causes a dilatation of the iris and there are a few authentic cases of Basedow's on record with a dilated pupil and no further implication of the third.

The slide of Horner's syndrome is shown for a purpose, and the purpose is: At present we have two patients in the Cook County Hospital with Basedow's disease, and each has a complete Horner's syndrome, and the enophthalmic eye is also considerably less exophthalmic than the opposite eye. This certainly is rather good proof of the fact that you can have a Basedow's disease in a Horner's syndrome complex and exclude the idea of the sympathetic being the cause of the symptoms. In these same individuals with a Horner's syndrome complex, one can manifestly



Epithelial bodies of the Thyroid. Marked injury to them or complete removal of the largest portions, is prone to cause tetany.

accentuation of the blood current will, to a certain extent, increase the blood pressure per se, as it were, and cause a certain fundus hyperemia, but it is not pathognomonic nor of any consequence.

The four cardinal symptoms of exophthalmic goiter which we usually consider are: (1) the von Graefe sign, which is the lagging of the upper lid in the downward rotation of the globe; in other words, quite a bit of the sclera is shown above the cornea; (2) the Dalrymple sign, which gives the stare, because of the lid retraction, in which a goodly section of the sclera also shows above the cornea; (3) the Stellwag sign, which is the lack of

demonstrate the Stellwag, the von Graefe and the Dalrymple on the same side as the Horner's syndrome complex.

It does not seem reasonable under these conditions to ascribe the sympathetic as the cause of all the eyelid manifestations of exophthalmos in Basedow's.

These several lid symptoms are explained as follows: The von Graefe, with the lack of motility or rotation of the eyelid downward in conjunction with the globe is an asynergy. The extreme dilatation of lids, the Dalrymple sign, the wide palpebral aperture, is due to the persistent tonicity of the levator muscles which raise the lid and compensate the activity of the orbicularis. On top of this comes the reflex hyperactivity of the sympathetic which stimulates the unstriated muscles of the globe, in the socket and the lids. It is this reflex sympathetic action which adds to the permanency of the retraction of the lid and the other signs. This is the basis of all of the lid symptoms: It is the hypertonicity of the levator palpebrae muscles with the corresponding relaxation of the orbicularis and associated reflex stimulation of the sympathetic.

The four signs; namely, the Dalrymple, the Stellwag, the Möbius and von Graefe, are not found in any normal individual nor are they seen in connection with any brain lesion, such as tumor, meningitis, and the like. These lid symptoms are seen only in encephalitis and Basedow's. They can be simulated automatically, but can never be maintained; e. g., facial mimicry or the stare in animated conversation, particularly among actors or those with stare fixation or depression.

There is another similarity between the two, or a dissimilarity which proves they are similar, because action and reaction in the opposite direction in physics as well as in medicine are equal. The lid symptoms in Basedow's disease when once present never again disappear in toto, though the general symptomatology of Basedow's disease may have been relieved, (the tachycardia, emaciation, tremor and restlessness). While in encephalitis lethargica they very often disappear, still now and then one symptom may be permanent, usually a paresis of part of the third or sixth.

The exophthalmos once present remains, and, if it has seemingly receded to a certain extent, then in the beginning the proper measurement of the protrusion of the two globes was not taken with Hertel's exophthalmometer. It is not the rough measuring that will define these conditions. There is an apparent recession of the exophthalmos, but not a real one, and it is due to the relaxation of the upper lid, allowing it to come down a little farther, therefore narrowing the palpebral aperture.

The most complex symptom to explain in both

diseases is the exophthalmos. To what is it due? Some, and perhaps a good many, have seen myasthenia gravis cases in which there was an exophthalmos and often mis-called proptthalmus. We know perfectly well that in myasthenia gravis the endocrine glands and the sympathetic are involved. In myasthenia gravis there is an abundant lymphorrhagia into the tissues as well as into the neighboring structures. It is the orbital content distention by this lymphorrhagia, which in a broad sense may be a so-called trauma, that causes a



Horner's Syndrome Complex—drooping of lid, narrowed palpebral, smaller pupil, moderate enophthalmos.

peripheral paresis of the extra-ocular muscles allowing a relaxation, the mere weight of the globe allowing it to fall forward. There arises an exophthalmos in myasthenia gravis because of the lymphorrhagia, but no true von Graefe, Stellwag, or Möbius sign ever appears. The pseudo-Möbius sign in myasthenia gravis rests upon the paretic state of the internal recti muscles. In encephalitis lethargica it is due to the paresis or paralysis of the third nerve, allowing neither to converge the eye. When convergence is attempted, a reflex act from the external recti is engendered and the eyes immediately begin to diverge or assume parallelism.

The Möbius sign in Basedow's disease is almost impossible to explain, with the exception of con-

sidering it an excited nervous condition as a whole. The patient attempts to converge and he makes an excessive effort to keep the convergence, which will reflexly stimulate the externi and allow the eyes to return to parallelism. The surplus of stimulation goes over as a reflex act and immediately sends its impulse down to the external rectus muscle for withdrawal and, as the reflex is greater than the maintenance of the converging act, the eyes again diverge.

There is no sympathetic involvement in the Möbius sign, though some physiologists maintain a sympathetic influence in accommodation, and therefore indirectly in convergence. It does not depend upon the protruded globe nor upon the retracted lid, as asynergy is a large factor in its maintenance.

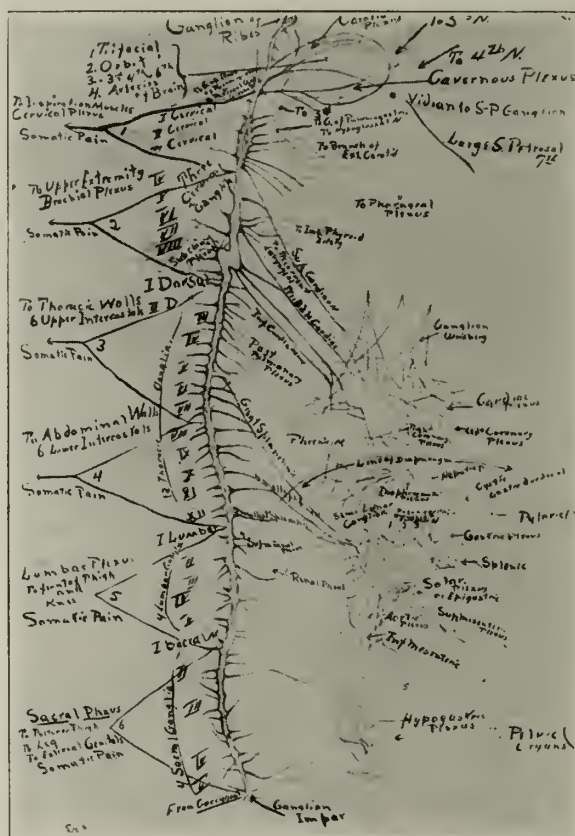
The classical symptom which includes all the manifestations of the lid signs is the Dalrymple sign. The von Graefe sign is one of pure asynergy. The Stellwag, the lack of winking, is due to several factors: first, the globe is protruded; second, the lid is retracted and is in a tonic state of retraction because of the several factors mentioned before; therefore, the cornea is more or less unduly exposed, becomes accustomed to being hit by the wind and dust, is more or less habituated to these minor traumas and less winking takes place. However, there are a good many Basedow as well as encephalitis cases in which there is marked winking. Indeed this excessive winking is one of the characteristics of encephalitis lethargica.

Why can we and other investigators say that there is a close connection between the two diseases? Because the lesion or lesions causing the eye symptoms, the lid symptoms, in Basedow's, as well as in lethargica, are intracranial. Postmortem findings in encephalitis show positively that the aqueduct of Sylvius, the motor ganglion and the third ventricle are involved. Pathological evidences to this effect positively prove that the third nerve has been involved. Several postmortems have been made in which similar lesions were found in these brain centers, in patients dead of Basedow's disease. It is quite reasonable to suppose that Basedow's disease produces not only one toxin but perhaps several; or it may be the same toxin, call it thyroid toxin X for argument's sake, that causes the lid symptoms by involving the mentioned brain centers. It also may cause the general tremor, but perhaps it is not the same toxin which causes the tachycardia. I question very much whether the sympathetic throughout the entire manifestation of the symptomatology of Basedow's disease is ever involved as an etiological factor. It is a contributory factor after the disease has once been established. There is no

questioning the fact that it is a reflex acting factor or agent.

If, with a paralysis of the cervical sympathetics on one or two sides, an exophthalmos can develop, with an accompanying von Graefe and a Dalrymple, it makes one question the old idea of Basedow's disease being due to the hyperstimulation of the sympathetic.

Very frequently there are pupillary disturbances in encephalitis, but not in Basedow's disease. In encephalitis there is a paralysis of the intra-ocular



Ramifications of the Sympathetic Nerve from Ganglion Impar to Ganglion of Ribes.

portion of the third nerve. In Basedow's disease there is the reflex hyperstimulation which always directly or indirectly implicates the sympathetic and stimulates the unstriated muscles and keeps up the tone of the striped muscles, thus causing a mydriasis and not a myosis. Therefore, it accentuates every single manifestation of the direct cranial nerve supply of the muscles implicated. In the perfectly normal condition, the sympathetic is a check mate system of the cranial. It regulates the nicety of motion in synchronicity and extent.

With Horner's syndrome complex the patient's upper lid droops, yet it can be raised; not as far as the opposite side, however, as there always is a

lack of tonicity in the upper and lower lids, which is not true with a full functioning sympathetic system.

Another mutual symptom between encephalitis and Basedow's as related to the eye needs stressing. In Basedow's disease there frequently are protruding globes with corneal complications; and this self-same manifestation occurs in encephalitis as the result of the involvement of the same nerves—trigeminal. In both instances the terminal trigeminus is paralytic on a toxic basis. Corneal ulcerations in the very toxic and fulminating exophthalmos are not a rare clinical finding. It is not so much the corneal anesthesia alone as it is this plus the infrequent winking and wide palpebral aperture which cause the ulcerations. Especially are they prone to occur if a Horner's syndrome is concurrent with the Basedow's, as was observed in a Cook County Hospital patient. A like train of symptoms occur in encephalitis. In either case you may, if you please, consider these ulcers due to trophic disturbances. Whether or not there are trophic centers or fibers is still a question, but nevertheless we frequently find corneal ulcers when both the trigeminus and the sympathetic are paralyzed.

It is quite reasonable to suppose that trophic centers and fibers do exist in either one or both of the nervous systems, as nature is so profound in the supply of all other rehabilitating centers and fibers for the protection and conservation of its own structures.

There is a time in women's lives as well as in men's, (seemingly so), when an exophthalmic goiter is rather prone to arise, particularly in women at the age of menopause. It is a pseudo-vicarious menstruation manifestation, and it behooves the general surgeon as well as the internist to take cognizance of the ocular manifestations at this time, and particularly to check the basal metabolism. The suggestion is not very far amiss that no surgical interference at these particular periods should be considered without due reference to the medical aspect of such patients. It is in these cases that surgery has given the ophthalmologist many worries—namely the worries of tetany. Symptoms of tetany are not altogether unknown in encephalitis lethargica.

The tetany that arises in exophthalmic goiter is due principally to injury of the epithelial bodies and perhaps injury of the parathyroid as well. The one ocular manifestation that frequently follows in the wake of this tetany is cataract. It is one of the reasons perhaps why we have more cataracts in women at this age than in men. The lenses are histogenically of the same character and structure as the epithelial bodies. We know the ductless glands all work in harmony, and there

may be some connection between the production of cataract normally as there is in the production of cataract in tetany following an operation for exophthalmic goiter.

Surgical interference for the removal or the reduction of the exophthalmus is inadvisable. The only reasonable measure is to narrow the palpebral aperture by suturing the lids, thus preventing undue corneal exposure. This is a protective measure.

The cataract that follows the tetany should not be operated without the patient having been thoroughly treated with calcium and the tetany condition completely controlled. It is a soft type of cataract and is usually very difficult to extract.

The last idea is to give this question of similarity of symptoms some consideration when you see exophthalmic goiter cases and have an opportunity of observing some of the encephalitis patients. The only lacking connecting link is the postmortem. Exophthalmic goiter in and of itself usually does not produce death. Those that do die, die rather of intercurrent diseases.

It seems right to assume that the changes found in the brain are the cause of the lid symptoms. However, there have been one or two, particularly Spellman, who have found that a direct surgical interference for exophthalmic goiter produced death, and were fortunate enough to examine the brain, and did find lesions in the aqueduct of Sylvius, motor ganglion and third ventricle, which clearly demonstrated a toxic character, or at least the changes that had taken place were sufficiently pertinent to produce the lid manifestations in said Basedow's. Any number of postmortems in encephalitis have definitely shown that its so-called Basedow's symptoms are definitely due to lesions in the aqueduct Sylvius, the motor ganglion and third ventricle.

In conclusion I wish to state that my clinical observations of this similarity of symptoms between exophthalmic goiter and encephalitis agree with those of Velhagen, Jr. In an article on the same subject which appeared in the *Klinische Monatsblätter für Augenheilkunde*, Feb., 1930, he presents the question in full detail and appends a voluminous bibliography. You are referred to this article for a further consideration of this question.

SOME OUTSTANDING PROBLEMS OF STUDENT HEALTH*

GRACE E. WILLIAMS, M.D., Iowa City

Problems of student health are the problems of any human being plus those which have arisen as

*Presented before the Thirty-third Annual Meeting, State Society of Iowa Medical Women, Marshalltown, Iowa, May 13, 1930.

a result of the student's environment on a college or university campus. To anyone who has been in close touch with university students it is no surprise to hear that the environment in which a student lives is not natural nor is it conducive to the formation of the best health habits.

Aside from the usual medical and surgical cases, such as acute upper respiratory infections, skin diseases, appendicitis, injuries, etc., there are a large number of ailments brought to the attention of the university medical advisor which do not usually reach the general practitioner, or at least not in such great numbers. R. W. Bradshaw¹ of Oberlin College has stated in a recent article, "The average patient consults the physician when symptoms have advanced to such a state that relief is demanded. Students bring diseases to the attention of the physician when prevention can be practiced." This is even more possible in my office in the women's gymnasium where an atmosphere of informality and friendliness prevails. Apparently minor symptoms are brought to my attention and often result in the opportunity to check the further development of more serious diseases, including the psychoneuroses.

There is one striking exception to this opportunity for preventive medicine. The personal hygiene of the college girl of today is far above the average for women of the same age out of college. After examining about 1500 women yearly I find eye, ear, nose and throat defects very prominent just as they are in any group, but considering the greater physical freedom of women and the increased interest in sports, the prevalence of postural or orthopedic defects and poor muscular ability is appalling. Although such defects do not necessarily shorten the life of the individual they do prove to be a serious handicap in general physical efficiency, and indirectly through fatigue and discomfort they lower mental efficiency. Such a handicap then produces in many cases an emotional reaction of inferiority and disappointment.

To see these girls of college age, otherwise so attractive, but with varying degrees of scoliosis associated in many cases with rotation of the thorax and pelvis, others with round shoulders and forward head, and still others with severe degrees of lordosis, would be much more impressive than any statistics I can give you. With these spinal deviations there is a still greater number of foot and leg defects, such as low to flat arches, pronated arches, huge bunions, callouses and corns, and toes in every shape and direction. In the freshman class this year, out of 284 girls examined there were 72 who showed varying degrees of scoliosis with 15 of them structural in type. Thirty

of the 72 showed some degree of rotation of the thorax or pelvis with the scoliosis. These spinal deviations would not be quite so regrettable if there were any appreciable hope for cure in the individual cases. Some are referred to the orthopedic department of the University Hospital, but the majority are given special exercises in the physical education corrective classes. We can only try to prevent the curves from becoming worse, but can do practically nothing to cure those already existing.

The vast majority of these postural defects have never been noticed until the girls are seen in the routine entrance physical examination. Why have they not been noticed sooner by parents, teachers and family physicians? Scholder reports that 20 to 30 per cent of school children show functional scoliosis, the result of faulty posture assumed during or before the school age. Dr. Steindler⁵ says that "So far as real prevention of the deformity is concerned, there is no question that the results of school inspection have fallen short of expectations. This is due to the fact that inspection is not practiced at the age at which the beginning of the deformity occurs. The ultimate causes are submerged in general systemic conditions of the organism and hence are of greater interest to the practitioner."

The congenital, paralytic and rachitic types all have their clinical manifestations and each has a prolonged prescoliotic stage in which prevention can be practiced.

"Habitual idiopathic scoliosis has received the most attention, but too late, at eight to fourteen years of age." (Steindler⁵) The rapid growth during school years and faulty postural attitudes at school are accentuating and aggravating elements but not causative factors. The critical age as given by Dr. Steindler is between three to five years, a period of very rapid growth when prophylactic measures should be started. Inspection must be continued through adolescence to prevent the occasional faulty attitude from becoming habitual, but real prophylaxis must begin before the symptoms of actual deformity make their appearance.

Since November, 1929, fifty-four girls have been given special treatment for painful arches. If the pain were limited to the feet the condition would be serious enough, but when "rheumatic pains" in the legs, backaches, irritable dispositions and bad temper result from painful arches, corns, bunions, etc., the seriousness is greatly increased. A tremendous amount of time is lost each year because of foot ills. Taking the same group of girls who presented spinal deviations the approximate percentages of foot defects were as follows:

Longitudinal arches		Transverse arches	
Normal	44.5	Normal	53
Low	28.5	Low	46
Pronated	27.0	Callus	15
Toes			
Straight	66		
Crowded and curled.....	32		
Hallux valgus	41		
Corns	25		

The average college girl does a great deal more walking at the university than she did at home. She hurries from building to building, up and down hills and several flights of stairs, and although no statistics are available, a few days' observation will show all this being done with the feet clothed in shoes that are too short, wrongly shaped and with heels from 1 to 3½ inches in height. Then all the earlier weaknesses manifest themselves if they have not already done so.

At the University of Illinois, in 1927, Professor George T. Stafford found that only 43.4 per cent of the freshmen had normal feet. Spinal defects ran equally high.

In a survey of the Glendora Foothills School of California, where the children all came from good homes, fifty pupils were examined:
45 out of the 50 had foot and leg deviations
41 scapular deviations
32 spinal deviations

Reports from other schools from the east to the west coast give the same results.
Orthopedic examinations at the University of Iowa for 1929-1930 revealed the following findings. The first examination was made in the fall of 1929 and the second examination in the spring of 1930.

Total number of freshmen women examined: 273.

Longitudinal arch							
Right foot				Left foot			
Normal Exam.	Abnormal Exam.			Normal Exam.	Abnormal Exam.		
I II	I II			I II	I II		
41%	28%	59%	72%	40%	28%	60%	72%
Transverse arch							
Right foot				Left foot			
Normal Exam.	Abnormal Exam.			Normal Exam.	Abnormal Exam.		
I II	I II			I II	I II		
66%	58%	34%	42%	63%	57%	37%	43%

In every examination the percentage of abnormal arches was greater than the normal, but the most striking observation is the marked increase in abnormal arches from the fall to the spring examinations. We have no examinations of the upperclassmen to see if this increase continues. My impression is that it does.
In the examination made the previous year there was an increase in pronation from 16.9 per cent during the fall examination to 26.8 per cent during the spring or second examination. Two hun-

dred and one girls were examined at that time. The other findings were practically the same as this year's.

As in the case of scoliosis, the hopelessness of the cure leads us to look for the cause and prevention. At the same time these girls who are really handicapped by foot defects must be cared for by systematic corrective exercise, adhesive taping, and rebuilding of shoes. They must be advised as to the correct types of shoes and the correct way of walking with the weight directed to the outside of the foot to relieve the strain on the spring ligament. This means walking with the feet directed straight forward or even "toeing in" rather than "toeing out" as many of them have been taught to do.

Defects of eye, ear, nose and throat are now quite readily detected by parents, teachers and physicians, but "the feet that are to carry the children through daily tasks and contribute so much to their well-being and happiness are given little consideration until they cause inconvenience, discomfort and pain." Approximately 70 per cent of all school children have deviations from the normal and the prevention of these foot defects must begin earlier than it has heretofore. There are no arches apparent in the newborn, but at one year weight bearing is allowed, muscles begin to act and from twelve to eighteen months the arch becomes slightly evident. At three and one-half to four years the midtarsal bones show in the x-ray, and by the seventh year the navicular bone, the keystone of the arch, is complete and fairly good arches are formed. If the weight is borne too far inward a weak flat foot results.

No one seems to notice these defects until at adolescence the curves become more pronounced and evident with the clothing on; rotation takes place in the thorax and pelvis; and weak, flat, pronated feet develop because of increased weight and activity.

I have emphasized this problem of student health because of the difficulty of dealing with it by any curative process at this age.

Another problem which to my mind is even greater, is that presented by mental and emotional maladjustments. Dr. C. C. Little" in his new book "The Awakening College," says that "A great body of long recognized facts has shown that perhaps numerically the largest and certainly the most tragic cause of failure in college is emotional in nature."

A girl leaves all the customary supports of home behind to enter a University where classes are large and impersonal, scholastic competition keen and social atmosphere dominated by sorority and fraternity distinctions. This new environment,

plus greater freedom in "dating" and sexual contacts are bound to influence the most healthy and well balanced girl. Invariably many girls enter college poorly prepared and with an emotional instability which quickly succumbs to these influences and actual neuroses and psychoneuroses develop.

Most of these cases are referred to the medical advisor because of "fatigue," vague digestive disorders, or delinquencies in work or class attendance. Further investigations reveal mental and emotional conflicts as the root of the trouble.

Statistics are at present unreliable in presenting the extent of the problem, but the following cases were among many brought to my attention within the past three months.

CASE. I. A girl aged nineteen. Good family history. Physical examination negative. Came to medical advisor complaining of "pain and tight feeling in her chest." General hygiene was good, her scholastic standing high up to the present time. She was a sophomore student at the University. She was assured there was nothing physically wrong with her, but being very serious and overly conscientious she was advised to take more time for recreation. She was apparently unconvinced, for a few weeks later she stopped going to classes and after a week's absence was sent to me by the Dean. Her story is too long to give in detail. She felt she was a failure and wanted to go home. Every night she went to bed worrying because she couldn't catch up with her work and was never able to complete anything. She was afraid she couldn't make her grades. I tried to get her to go to class the next morning unprepared, just to convince her that the heavens wouldn't fall if she did fail in a recitation, but she went to her room to pack her trunk. She called me at 11:30 that night, however, and wanted to talk it over again, which we did. She is still in school getting much enjoyment out of her work.

There had been no real play or recreation since childhood; she was very much dependent on her mother; always serious minded; had no dates in high school or college; no real girl chums. She felt inferior to her sister who was very vivacious and popular. She spent so much time and worried so much over details that her work was never done. Last of all came the story of one lone date at a church party two years previous and this being the only date she had ever had, she still felt she was in love with him. We lightened her classwork, made out a very definite time schedule of study and recreation and she reported to me daily for two weeks for friendly informal short conferences.

CASE II. Girl of seventeen. Negative family history, no financial worry. Referred to me by

Dean's office to see if absences were justifiable because of alleged stomach trouble. Medical examination negative for any abnormalities.

Further consultation revealed the following: She came to the University expecting to find an academic atmosphere dominant, and unprepared for a tense, competitive social atmosphere, governed by sorority standings. This disappointed her, although she was a girl accustomed to a normal happy social life in high school and through childhood. She joined a prominent sorority and began to "date." On her second "date" the man suggested sexual intercourse, saying that all men today preferred to marry girls who had had a little experience. This frightened and shocked her and she said she refused. Then she found other girls of her crowd who permitted it and she began to wonder if her ideals were all wrong and old-fashioned. An acute conjunctivitis developed requiring repeated treatment and she neglected to obtain excuses at the proper time for her absences. She then was put on probation for "cutting" classes. Sessions with the Dean and the disapproval of her sorority proved too much for her and she developed chronic indigestion with nausea and vomiting to explain her situation. She is adjusting herself quite well now and we hope will be able to continue her college work.

I cite these two instances as two extremes of social development, but many others with different aspects might be presented if there were time.

This is a problem which the University can to a great extent meet if it will. But it cannot assume all the burden. Greater amount of ability to depend on their own resources and more real wholesome frank instruction in sex must be given long before the students enter the University. And this points to home responsibility.

In a questionnaire given to the freshmen women last fall, sixty to seventy per cent did not know the names of the female reproductive organs and a larger per cent knew practically nothing of the physiology of menstruation and reproduction. Eighty-five per cent did not know the names of the venereal diseases and practically nothing concerning their modes of transmission. Such ignorance is tragic considering the growing present tendency toward laxness in sex relationships.

Although mental and emotional independence should be sought for and sex education begun before college entrance, there will always remain much to be done to help these girls through the new and bewildering atmosphere of University life. It is still a question as to the proper person who should give this help. In the few instances where service of this kind is being tried, it is usually done either by trained psychiatrists or

psychologists acting as vocational advisors or mental hygienists. There are some dangers, however, to be considered. Dr. Little⁶ expresses these by saying, "More sane and painless results are obtained from those who have the point of view and general methods of a mental hygienist without his professional manner, degree or shingle. The average student fights shy of anyone who gives the impression that he is in need of mental disentangling. On the other hand, he will accept graciously and often greatly profit by advice and an analysis of his mental maladjustment, if the advice is informally and confidentially given as incidental to his college work."

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INTESTINAL OBSTRUCTION*

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During the past two decades the general surgeon has become increasingly proud of his record. Operations formerly undertaken with great trepidation are now routine affairs. Viscera, heretofore inaccessible, are operable today by means of surgical instruments of new invention. Details of antisepsis and sterilization are now so systematized that thought of extraneous infection is scarcely considered. Technical facility and the development of operative team work have lessened the tension and speeded up the work. In his mortality record (The Judgment Seat on Earth of every surgeon) he further substantiates his claim of superiority over those operators of twenty years ago, one glaring condition excepted. The records show that the mortality in intestinal obstruction has remained a tremendously high figure.

With somewhat of a jolt, attention was directed to the subject when our hospital pathologist summarized the cases of intestinal obstruction operated during the past two years. Ten surgeons, whose series varied from 17 patients to 1, had operated 38 cases and there were 17 deaths! Not a happy picture; nevertheless, a similar situation undoubtedly exists in many hospitals today. In our institution this study served the purpose of intensifying our efforts toward the improvement of this situation. We feel that our endeavors have been justified. We are forced to admit that pro-

crastination in adopting newer methods of proved value has been at least partially responsible for these figures. Laboratory workers have investigated the field from every angle and their reports have stimulated clinical work justifying their claims. Nevertheless the majority of surgeons continue to rush into the abdomen, overcome the obstruction, often with an elaborate operation, only to lose the patient a day or two following.

Emphasis cannot be placed too strongly on early diagnosis. The treatment is difficult enough in the early stages of an obstruction, but, with a handicap of forty-eight to seventy-two hours, the chances for recovery are considerably lessened. The masking of abdominal symptoms by the use of morphine is well known but we would stress the point that it should never be used in intestinal obstruction. Holden of Portland states that delay in operation, together with the preliminary use of morphine and catharsis, account for seventy-five per cent of the deaths in this condition.

One is impressed with the variability of statistics in the literature of obstruction. A New Orleans hospital in a large series reports a mortality rate of fifty per cent, while Holden gives his mortality as between ten and fifteen per cent and this, he thinks, should be lower. Granting an equality of ability among the many reporters, there must be other reasons for the differences in results. We believe three factors may be held accountable; (1) the type of obstruction encountered; (2) the time element between onset of symptoms and beginning of treatment; and (3) the type of treatment employed.

Hausler and Foster classify mechanical obstruction as (1) acute simple obstruction in which there is occlusion of the intestinal lumen with no circulatory involvement and no damage to the bowel wall, and (2) acute strangulation in which there is interference with the arterial, venous, and lymphatic circulation as well as obstruction of the lumen of the bowel. Gatch, Trusler, and Ayers independently reached the same conclusion and further stated that in simple obstruction death is due to dehydration, starvation, and loss of body chlorides, while in acute strangulation the patient rapidly succumbs to an overwhelming toxemia.

There is, however, a type of obstruction apart from this classification, but equally as important from a surgical viewpoint. I refer to an adynamic intestinal obstruction or paralytic ileus which occurs during an operative convalescence. Peritonitis and obstruction are often concomitant factors and for this reason Macrae believes that in cases of definite peritonitis it is the resulting obstruction that is the cause of death rather than the peritonitis and therefore the obstruction that should claim the surgeon's attention. In this type of case

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excellent results should be obtained, for diagnosis can be made early and the proper treatment promptly instituted.

Several theories have been advanced regarding the actual cause of death in acute obstruction, but those of bacteremia, perverted secretion, dehydration alone and specific infection with *B. Welchii* have been largely rejected for the theory of toxemia. Hayden and Orr, working on the chemistry of obstruction, have shown that a large amount of chlorides are withdrawn from the body in a relatively short time and that the fluid above the obstruction contains as much as 5 gm. of chlorides per liter. After producing simple obstruction in dogs by tying off the bowel, these workers have kept the animals alive several weeks without toxic symptoms developing. They have done this by the administration of large amounts of saline by intravenous and subcutaneous routes.

In support of experimental work, considerable clinical work has been done. Holden's results are brilliant though drastic. Through a large incision he eviscerates the abdomen of intestinal content and locates the point of obstruction. An enterostomy is completed above the obstruction, using an open test tube instead of a catheter in the bowel. The small bowel is then grasped between the operator's index and middle fingers as high in the tract as possible and the assistant pulls the bowel through, producing an effect much like the wringer action on a washing machine. By this means all the toxic products are eliminated through the enterostomy and irrigation may further cleanse the bowel. The type of obstruction and the condition of the patient determine whether further operation is advisable at that time.

The method of treatment recently described by Stowe and Phillips of Miami appears to be most logical. As soon as diagnosis of obstruction is made they pass a Rehfuß tube into the stomach and duodenum and begin hourly aspirations followed by two ounce instillations of ten per cent glucose. Fifty grams of glucose in normal saline are given intravenously, followed by sufficient insulin to burn the glucose, in a ratio of one unit to two grams. Saline is continued every few hours by intravenous and subcutaneous routes. By these means the toxemia is frequently brought under control, but with progressing symptoms a high jejunostomy is performed.

These advantages are claimed: By use of the Rehfuß tube a means of drainage is established, reverse peristalsis and vomiting are allayed and ready means provided for supplying nourishment to the absorbing portion of the bowel. Glucose supplies food in a vehicle easily assimilated; it promotes diuresis—an aid in decreasing the elevated

nonprotein-nitrogen content of the blood—and theoretically, it produces a fixation of the toxic products in the cells of the intestinal mucosa, thereby inhibiting further absorption of toxins. The saline, given in great quantity, replenishes lost body fluids and chlorides and aids in combating toxemia. The high enterostomy provides an outlet for toxic products, allows for washing of the lumen and for feeding. If there is anything to Williams' as yet unproved theory that the causative organism is an anaerobic bacillus, then the enterostomy opening allows for the entrance of oxygen as an added combative agent. To our minds, here is a procedure which is safe and sane and gives a greater chance of success to both patient and surgeon.

Of the cases under our care recently, three, representing different types of obstruction are of sufficient interest to be reported briefly.

CASE I. R. C., a boy of fifteen, had been ill at home for five days with an influenzal infection. On the sixth day he experienced a sudden sharp pain in the left iliac region. He vomited shortly and the abdomen became distended. An enema was returned clear. Pain and vomiting became progressively worse and six hours after the onset of the pain he was brought to the hospital. He presented a picture of definite shock, skin cold and clammy, temperature 95, pulse 140 and thready. The abdomen was greatly distended and peristaltic waves were noted in a sausage-shaped mass lying high in the epigastrium. White count was 28,600. Under local anesthesia the abdomen was opened and the greatly distended transverse colon appeared, grey green in color with black spotting. A caecostomy was rapidly done and a quart of thin, dark, foul-smelling fluid was evacuated. The abdomen was quickly closed and the patient returned to his bed. Intravenous and subcutaneous saline was given, but he died six hours later. Autopsy revealed a thrombosis of the superior mesenteric vein and artery; hemorrhagic infarction of a portion of the jejunum, all of the ileum, ascending and transverse colon and gangrene of the large intestine; right influenzal pneumonia of the lobar type. Obviously no treatment would have availed, but it shows that if many such cases are included in a series the mortality statistics will remain high. Fortunately this type of case is least common.

CASE II. Mr. C. S., a seventy-two year old hermit, was found by the referring doctor alone in his hut in the hills, acutely ill. He was brought to the hospital immediately. The history was indefinite in that the patient could not remember whether his bowels had moved that week or not. Except for a constipation of years standing, he

had always been well. Examination revealed an elderly man, acutely ill and thin almost to the point of emaciation, with dry skin, coated tongue, and offensive breath. A loud systolic murmur was heard accompanied by a definite arrhythmia of fibrillation. The abdomen was uniformly distended and tympanitic throughout, with no masses palpable. Rectal examination was unsatisfactory. Repeated enemas were returned clear, and following intravenous saline, the abdomen was opened under novocain. The large bowel was greatly distended down to the sigmoid, where a hard, nodular mass was encountered. A colostomy was done just proximal to the mass and a large amount of fluid evacuated. He improved steadily during the next ten days, gaining in weight and strength, when myocardial symptoms developed and the patient died a few days later from cardiac failure.

Here is a case of simple obstruction which demonstrates Haden and Orr's contention, despite the fatal outcome, that a patient with simple obstruction may be carried along for an indefinite period under conservative management of drainage of the bowel and replacement of lost body chlorides and fluids. Had an attempt been made to remove the tumor the patient would not have survived the first few postoperative days, for intestinal surgery in such a distended bowel is generally unsuccessful.

CASE III. H. P., a nineteen-year old girl, was admitted with a diagnosis of pelvic peritonitis following a gonorrheal infection of three months standing. At operation both tubes were found badly infected and the entire pelvis bathed in pus. The bowels were reddened and there was some distention of the small bowel. A bilateral salpingectomy and appendectomy was done and a small rubber tissue drain inserted. A normal convalescence ensued for six days when she was awakened suddenly with abdominal cramps followed by vomiting. Feeding by mouth was immediately stopped and stomach lavage produced a large amount of dark fluid. The pain intensified, vomiting continued, and, following a clear return of repeated enemas a diagnosis of obstruction was made and treatment started. A Rehffuss tube was introduced and 200 cc. of dark odorous liquid aspirated. This was followed by instillation of two ounces of ten per cent glucose. Fifty grams of glucose were given intravenously followed by a pint of normal saline. Twenty units of insulin were injected hypodermically to burn the glucose. The next hourly aspiration produced 100 cc. of light green material, and again two ounces of ten per cent glucose were instilled. The third hour only 60 cc. of a non-odorous pale yellow fluid were obtained and thereafter nothing could be

aspirated. At the end of four hours she had had an additional 1000 cc. of saline. The progress of the toxemia seemed arrested, but six hours after the beginning of treatment the temperature, which had been subnormal, rose to 104, the pulse to 140 and the patient evidenced definite shock. She was taken to the operating room and under novocain an upper left rectus incision made. Picking up the first loop of jejunum which presented and noting the collapse of underlying colon, a jejunosomy as described by Macrae was performed, using a No. 18 F catheter. On return to her room, half hourly aspirations and instillations of glucose were continued through the catheter for the next twenty-four hours, the Rehffuss tube having been removed before operation. Forty-eight hours later the bowels moved spontaneously and on the fourth day the catheter was removed. With the exception of a bilateral parotitis which required drainage, the patient's convalescence was rapid and normal in every respect.

This was a case of paralytic ileus with peritonitis. In pelvic infections of this nature, the intestines frequently become matted together and adherent to the peritoneum by a glue-like plastic exudate. Complete rest to the bowel which the enterostomy provided, allowed for the absorption of this substance and the releasing of these newly formed adhesions. Exploration in this type of case in an attempt to find the point of obstruction is ill advised for additional adhesions may form and the condition become aggravated. It is our conviction that conservative treatment, as suggested by Stowe and Phillips, will do much toward lessening the mortality in intestinal obstruction and preceded by more prompt diagnosis, the hazards should be no greater than other abdominal conditions.

SUMMARY

1. Because the majority of surgeons have delayed in adopting newer methods of treatment in intestinal obstruction, the mortality rate has remained high.
2. The variability in reports on the subject is due mainly to differences in classification and type of treatment.
3. The method of conservative management offers a mode of treatment best suited to the majority of cases.
4. Three cases are presented which are typical of their respective types.

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THE TREND OF MODERN OBSTETRICS

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The development of aseptic surgery, augmented by the development of bacteriology and anesthesia, forms a brilliant page in the history of medicine. It has broadened out into various special fields, and these fields have developed workers skilled along special lines. All the body cavities are invaded with impunity and with brilliant results. Research is being conducted intensively in all phases of the art. Newer methods of anesthesia are constantly being introduced. Plastic, orthopedic, and industrial surgery have made strides to almost absolute perfection. The rehabilitation of the industrially injured is a tribute to the efforts of those engaged in this special field.

One important branch of surgery, however, has not partaken of the benefits of the above mentioned development, and that branch is obstetrics. The reasons for this are many and varied, and will be considered along two lines; first, the attitude of the laity, and second, the attitude of the profession.

The layman is influenced by the superstitions of the past. He sees only the emotional side, and, generally speaking, is in the dark concerning the importance of this function. Of late years, however, he is being enlightened, and this enlightenment is coming through agencies other than the profession. Lay journals and various other sources contribute to the dissemination of this information. I believe that an organized effort should be made by the profession to acquaint the public with the advantages of proper care during gestation.

Birth control is not the elusive will-o'-the-wisp that the few "self-appointed" reformers would have us believe. On the statute books of most of the states of the Union are laws prohibiting the dissemination of knowledge along this line. Yet we need but glance about us and see that the laity, from some source, are fairly well informed on the subject. Where are the large families of "yester-year"? We also know that this restriction in offspring has not come through wholesale abortion, nor from continence. It seems that the laity have taken into their own hands the pre-

rogatives pertaining to the function of reproduction, and we must admit that seventy-five per cent of conceptions are voluntary.

From the medical standpoint, I believe that a lack of interest is responsible for the evils which are apparent in this branch of surgery, and here, too, superstitions of the past have some influence. Is the function of reproduction physiological or pathological? Is the curriculum adequate? Much criticism has been directed toward it.

The functions and the responsibilities of the practitioner who would major in obstetrics make it imperative that he further fortify his proficiency by special courses: regular attendance at scientific meetings pertaining to his subject, and an adequate library including from twenty to thirty volumes on obstetrics. He should keep abreast of the latest developments in the art.

Taking the country over, about seventy per cent of deliveries are in the homes, and it is the province of the practitioner to apply the standards of surgical asepsis to the fullest extent. He must be fortified by complete knowledge of the subject, and his armamentarium should be positive. He should be prepared to meet all emergencies. The first requisite is sterilization, and this requirement is met only by the use of the autoclave. Rubber gloves and instruments boiled in a nondescript vessel with or without a cover, are wholly inadequate and do not constitute sterilization. All paraphernalia should be included in one bundle, and should have been sterilized previously by the autoclave. This should include instruments, drapes, towels, and sponges. The practitioner should have an able assistant. A trained nurse of mature years who possesses a special love and appreciation for the work is adequate. She should have had special training in obstetrics and anesthesia. Every case should be so conducted whether primipara or multipara, because complications of labor occur with startling rapidity, and the obstetrician should be prepared to meet them fully in order to forestall morbidity and mortality.

An important phase is the prevention and the repair of birth injuries of the genital tract. This means inclusion in his armamentarium of those special instruments devised to meet these requirements. I would refer to the "corner retractors" and the "cervical holding forceps" of de Lee. The leaders in this branch of surgery advise that all cervical tears be repaired immediately. This is an important phase in the prophylaxis of possible malignant lesions. Injuries to the pelvic floor may be minimized by episiotomy.

The alleviation of the pangs of childbirth is a consideration of interest to both laity and the profession, and here the superstitions of the laity

have some bearing. In the past it was considered sacrilegious to attempt to moderate to any degree the pangs of childbirth. The first case of anesthesia by ether inhalation in childbirth was in 1847 by Sir James Simpson and he was criticized severely by both the laity and the profession. In 1853, Queen Victoria, at the birth of her fifth child, was given chloroform inhalation by Sir James Simpson, and from that time forward anesthesia was looked upon with more favor. In the past twenty-five years anesthesia has been given more consideration in this branch of surgery. Twilight Sleep had its day and, although it was much criticized by the teachers and leaders twenty-five years ago, today it is countenanced and used in a more moderate degree in all of the leading obstetrical clinics in the United States. Synergistic anesthesia and rectal instillation of ether and olive oil, are commendable efforts towards safe and efficient anesthesia. Nitrous oxide is used to a large extent, but its benefits may be utilized only in the last few minutes of the second stage. Ethylene gas is a recent development and is used extensively in all the large obstetrical clinics and lying-in hospitals. Its explosive character precludes its use, except in especially arranged delivery rooms where no friction sparks are possible.

From the standpoint of the general practitioner, however, with an unhospitalized patient, ether is the anesthesia of choice. Although its use may be confined to the second stage only, it may be augmented in the first stage by the administration of morphine and scopolamin. For operative delivery where a complete anesthesia is necessary, it is the only available anesthesia agent that is practicable and safe.

In obstetrical practice, the question of records is important. A very small percentage of obstetrical patients are hospitalized, and I believe it should be the duty of every practitioner who cares for unhospitalized patients to keep complete records. It would seem that statistics must be absolutely unreliable in the absence of case records.

An important topic in obstetrics is the toxemias, and although research is extensive, the etiology is still obscure. The work of Stander at Johns Hopkins, of Irving, at the Boston Lying-In, and of Plass at the University of Iowa is to be commended. It behooves the general practitioner to lay special stress upon this phase of the subject, because every gravida is a potential eclamptic. He will encounter much opposition from the laity in that they regard the function of pregnancy as a natural process, and by non-cooperation may offset his endeavors along these lines. If a patient refuses to acquiesce to his requests for frequent ob-

servations, the practitioner shall at least have performed his duty by insistence upon them.

Prenatal care is the recognized agency which enables the practitioner to give to his patient the prerogatives of modern obstetrics. History, past and present, with special reference to pre-existing heart, liver, and kidney lesions; frequent urinályses and blood pressure readings are imperative. Physical examination should be complete. Blood Wassermann is a routine procedure in all clinics. Pelvimetry, internal and external, is profoundly important, and would not be neglected by the practitioner who has the welfare of his patient at heart. Aside from actual measurements he would also note deviation from normal posture with special reference to spinal deformities.

Since dystocia may also be caused by anomalies of the soft parts, the presence of lesions and anomalies should be elicited. Uterine fibrosis, stone in the bladder, lesions of the vaginal vault, and carcinoma of the cervix in aged gravidae are possibilities not to be overlooked. Infections of the genital tract, especially Neisserian, are of importance.

The pathology of pregnancy deserves deep consideration. First in importance are the co-incident conditions and among these are heart lesions, pulmonary tuberculosis, and nephritis. The practitioner will be called upon to determine what course to pursue in the best interests of the gravida. In cases of uncompensated hearts, pulmonary tuberculosis or advanced nephritis, therapeutic abortion may be indicated. This treatment, of course, should be carried out only after competent consultation. This phase has received much attention from the leaders in the past few years.

The pathology incident to pregnancy, with the exception of vomiting, generally manifests itself in the latter weeks of gestation.

We must admit that this is a complicated subject. The literature is so voluminous that only a cursory review of the subject is possible in this paper. I would refer you to the work of Stander of Johns Hopkins, "The Toxemias of Pregnancy," as the most comprehensive of recent publications.

The responsibilities of the general practitioner when he encounters such a case of toxemia of advanced pregnancy are indeed great. He must at once institute treatment that will be efficient, remembering that two lives are at stake.

The symptoms which predominate are hypertension, albuminuria, edema, and headache. Immediate hospitalization is ideal, but not always attainable, so he must proceed on his own initiative. I believe that his first consideration should be in the interests of the gravida. In the absence of hospital facilities, inductions of labor should be

done. This is not a complicated procedure, but the surgical asepsis must be absolute.

The danger to the offspring is not so great at or past the thirty-fifth week of gestation. During the past five years I have treated thirty-two so-called "pre-eclampsics" in this manner with no maternal mortality and with but three fetal deaths. Delivery was done by podalic version and extraction.

With lack of adequate hospital facilities, I believe that the same line of treatment is efficient in eclampsia. During the past five years I have treated twelve cases of eclampsia, the seizures varying in number in the different cases from two to twenty-seven. The Stroganoff treatment with the exception of chloroform inhalation was used as an adjunct. Venesection was done twice antepartum and once postpartum. Four hundred to five hundred c.c. of blood was withdrawn, and replaced with 250 c.c. of saline solution and five per cent glucose.

Delivery in two cases was spontaneous, and in ten cases, podalic version and extraction were done. There was no maternal mortality, but there was one fetal death. Nine of the gravidæ were primiparae and three were multiparae. This treatment is not orthodox and would probably be criticised severely. There is a trend toward conservatism in the treatment of eclampsia—it would even preclude abdominal section except in ultra-selected cases. One author says that his indication is fetal distress or imminent fetal death. I do not believe that we practitioners can afford to be so conservative.

I have observed the work of Irving at the Boston Lying-In-Hospital. His treatment is conservative, and his maternal mortality is ten per cent. I may be wrong in this estimate.

In the treatment of toxemias, we must not forget prophylaxis. If strict prenatal care is given the grávida, these conditions may be forestalled or mitigated. In all the civilized countries of the world intensive research is being conducted, but there is no hope for standardized treatment until the etiology is fully proved.

I should like to give Stander's classification of the toxemias of pregnancy.

1. Vomiting of pregnancy.
2. Low reserve kidney.
3. Nephritis complicating pregnancy.
4. Pre-eclampsia.
5. Eclampsia.
6. Yellow atrophy of the liver.

In low reserve kidney, Stander says that it is hard to distinguish between pre-existing lesions and those produced as a result of pregnancy.

Another complication which is frequently met

and which is often the cause of mortality is placenta praevia. Here the primary consideration is conservation of blood. I believe that the most efficient treatment is packing of the lower segment with gauze. This will induce labor, and after the uterine contents are expelled the danger is over. I have on record forty cases of praevia treated thus. All deliveries with the exception of five or six which were spontaneous, were by podalic version and extraction. There was no maternal mortality, but five babies perished. I have not attempted to classify the type of praevia. They do not differ much as to their gravity.

Premature separation of the placenta may occur at any time during gestation after the placenta is fully formed. The etiology is generally traumatism, and the danger is concealed hemorrhage. If a grávida sustains a fall or an injury, she should be put to bed and watched carefully for signs of shock. The outlook is not so bright for the life of the fetus.

Subsequent treatment should be expectant, but in case of profuse external hemorrhage we should not hesitate to pack the lower segment. In the post-partum treatment blood transfusion may be necessary.

The alleged maternal mortality of 25,000 per year in the United States must be reduced and to do this we must not temporize in our treatment.

The therapeutics of obstetrics has not changed materially of recent years. The addition of the extract of the Hypophyseal body, trade name of pituitrin, and the refinement of solution of extract of ergot so that it may be administered hypodermatically are the most prominent.

There has been much discussion relative to the use of pituitrin before the expulsion of the fetus. I agree that its use before the end of the second stage is unwise, and personally I consider that the greatest forward step I have taken in the practice of obstetrics was ten years ago, when I abandoned its use until the third stage.

Used judiciously, pituitrin is the greatest obstetrical aid since the advent of the obstetrical blades in 1550 or thereabouts. Its use has lessened mortality from postpartum hemorrhage to a very material degree.

Its injudicious use has produced fetal asphyxia and deaths. Maternally it has produced lesions of the soft parts of the birth canal. In all the obstetrical services in the large hospitals and in all the Lying-In Hospitals, its use is prohibited until the end of the second stage.

Another aid is blood transfusion. Since the advent of cross-typing, the dangers of this treatment have been reduced. It should never be forgotten in obstetrics. In the Lying-In Hospitals

the country over, universal donors are available at a moment's notice.

Puerperal septicaemia has received a vast amount of consideration in the past few years. In treating this subject, the greatest stress is laid upon prophylaxis, and this, we must agree, is the important point. I believe that no vaginal examination should be made during labor. The rectal examination is just as satisfactory. At times septicaemia will occur even after the most diligent delivery and post-partum care, and when it does we find that we are as much at sea as to efficient treatment as were our predecessors. The work of Koehler of Vienna, translated by Ehrenfest, is comprehensive. Geddes of Aberdeen has written an illuminating thesis on the subject.

Surgical treatment is not strongly advocated. Some maintain that the foci of the infection are in the uterus, and that their removal is indicated.

Serotherapy was enthusiastically hailed as a positive curative agent, but its efficiency has been cruelly disappointing. Various chemicals, such as mercurochrome and bichloride of mercury, introduced into the blood stream, have been used without brilliant results.

Transfusion or whole blood is perhaps the most efficient agency.

Again may I stress the extreme necessity of strict application to the tenets of surgical asepsis.

The appeal of the laity for alleviation of the pangs of childbirth was met by a widespread effort on the part of the profession to perfect safe means of anesthesia. These agents were enumerated in the opening pages of this paper. I have not mentioned chloroform because it has been recognized as having a deleterious effect upon the liver cells. When we remember that yellow atrophy of the liver is at times a complication of pregnancy, this action seems logical.

A further appeal to shorten labor was not received with much enthusiasm by the profession. Professor de Lee answered the appeal to a large extent when he advocated the use of "prophylactic forceps."

In the forceps operation there is, aside from the prescribed indications, one point not to be forgotten: the bladder *must be empty*. An attending man at the Chicago Lying-In Hospital has suggested that a catheter be tied to the forceps, so that one could never neglect this important detail.

Caesarean section is perhaps the greatest procedure that has been developed in obstetrics. The indications for its use are legion. It is not necessary here to enumerate these indications for we are all well acquainted with them. Much criticism has come from within the profession relative to

the wholesale application of this surgical procedure. The results as to morbidity and mortality vary greatly in different sections of the country. In the United States and in Europe the low cervical operation of de Lee is looked upon with much favor. De Lee does not claim priority in this type of section, but he must be given credit for its development.

I believe that Caesarean section is in its infancy and I believe it would not be ridiculous to prophesy that in the distant future this method of delivery will predominate. This will preserve in its original state the genital tract, and will in the prophylaxis of cancer be a result attainable in no other way. It will also be conducive to a happier marital state.

Podalic version is another means of delivery which has received much consideration. I believe that at the present time it is the most wonderful maneuver in obstetrics. By its use many of the complications of labor may be met with brilliant success. With proper indications its use is not fraught with danger to mother or babe. Its use in posterior positions of the occiput is ideal. In transverse positions it is equally efficient. By its use I have many times forestalled fetal mortality because of imminent prolapse of the cord. When an indication arises it should be used at once, because delay will make it a necessity instead of an elective procedure.

In the recent publications the attitude is very lenient toward podalic version. Some of those most rabid a few years ago now admit that it is a valuable asset.

I have observed the work of Potter at Buffalo, and was much impressed with his results.

I believe that prenatal care should also include routine blood counts. Galloway has proved that the majority of gravidæ show anemia to some extent. He has also proved that this condition responds quite readily to treatment before the end of gestation.

The work of Plass on metabolism during pregnancy also is interesting, and I believe that metabolic tests should be considered in prenatal care.

Kidney function tests would be indicative of the possible future course of the pregnancy.

Thus the trend of modern obstetrics is toward a higher plane. The stimulus is coming first from the leaders in this branch of medicine, and secondly, from the laity. It is evident therefore that we, the "men in the field," should bend every energy toward fulfilling our part in this gigantic task.

The essentials are: proper supervision of the gravida during her gestation, and strict adherence to the tenets of surgical asepsis.

Advertising Ethics of the Medical Profession

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In these times, great stress is being put upon the value of advertising. Immense sums of money are being spent by manufacturer, wholesaler and retailer. Much pressure has been brought to bear upon the medical profession by advertising agencies to enter into a campaign of advertising and much ridicule has been given to the attitude of the profession toward advertising by many editors of the lay press. The following discussion is offered in justification of the ethics of the medical profession as it pertains to advertising and in refutation of the popular allegation that the medical code of ethics is out of date and passé.

What is advertising? It is a method of bringing yourself or your product before the people for personal gain, in which you expect to dispose of something, either a commodity or a service, at a profit to yourself.

Mercantile advertising has always been accepted as legitimate. A merchant may have an especially fine line of goods at a certain price, or he may have a shelf-worn or damaged line of goods. He advertises this fact, giving the kind and quality of his wares. Anyone interested in such goods may come and buy of this merchant, but the prospective purchaser has the privilege and the opportunity of examining the wares which he intends to buy. In certain instances the purchaser is allowed to sample the goods, try them on or use other methods to determine their suitability to his needs before he makes a purchase. A manufacturer may advertise his product, making certain claims as to the fineness of the materials, workmanship, etc. that have been put into his product; but again he has something tangible to show the prospective buyer. There is a certain guarantee, explicit or implied, that the article shall come up to certain specifications. A bank may properly tell the public of the character of its

service and the facts which show its financial security. A real estate firm may, through advertising, inform the public that it has for sale or rent certain properties, but the prospective buyer may have the opportunity to examine the properties. In all such cases there is a concrete, tangible article which is being bartered; an article that the buyer may examine to his own satisfaction before purchasing. So, it seems, to advertise, one must either have a specific commodity or a specific service to sell.

What has the physician to sell? Knowledge? Yes. Skill? Yes. Time? Yes. Service, honesty and integrity? To all of these the answer is "yes." These are all that the physician has to sell. He has no tangible wares, no commodity that can be tried and returned or refused if found unsuited to the buyers' needs. Medicine is a vast and inexact science. There are very few specific medicines or methods of treatment. In chemistry we know that if a certain procedure is followed, the end result is the same every time it is tried. In the science of mathematics we know that two and two always make four. Not so in the science of medicine. Here we are dealing with complex organisms, all of which, though similar, are never exactly alike,

nor do they react in the same manner to various treatments. Similar ills in different types of patients present as many varied circumstances. The true physician uses no one system or method for the treatment of all cases of even the same ailment.

Therefore, what has the physician to advertise? He has no tangible commodity that he can deliver in each transaction and warrant that it will work. Can he advertise that he has more skill than his next neighbor? Can he advertise that he has more knowledge, or is more honest, or has more integrity

In *The Minneapolis Journal* of Friday, September 5th, Herschel V. Jones has discussed editorially The Code of Medical Ethics as applied to advertising. Excerpts from this article are herewith presented since they reflect a viewpoint not only of the laity but in some instances of the profession.

"One of the most cherished tenets of the code of medical ethics is that which forbids advertising. * * * Almost any ethical doctor will admit, in moments of frankness, that the medical code of ethics is sadly in need of revision. * * * Why does the medical profession with medieval blindness deprive itself of one of the greatest and most efficient of modern agencies? Why does it not apply to advertising the same scientific spirit of inquiry that animates it in other things, instead of enshrouding itself in ancient prejudices? Why does it not compete masterfully with quackery by efficient use of the very tool that quackery has so misused?

"Meanwhile, the public suffers through ignorance of what the profession has to offer for the alleviation and cure of physical ills. Meanwhile, the public falls for patent medicines and charlatan practices. Meanwhile the public is paying the bill for the obstinacy of the profession in sticking to its outdated and constricting code."

Now read Dr. Meredith's article.

—THE EDITOR.

than any other physician in town? Can these attributes be measured and weighed by the advertiser? The answer is quite apparent.

Even if the physician could advertise his wares thusly, is the public capable or in a position to adequately judge of these qualifications? When an individual feels cold, he reasons that he needs heavier clothing and he goes and buys. When he has a hole in his shoe sole, he knows he needs a new pair of shoes. Through experience he has learned to interpret his needs in everyday common affairs. But when an individual feels ill, he does not nor cannot know what he needs. In most cases he has had no experience with the symptoms that he has. In fact, without carefully examining the patient the doctor whom he consults cannot know what particular service he should render to him. The physician must be able not only to examine the patient and obtain information about him, but he must be able to interpret his findings in direct relation to the individual concerned and to consider carefully present idiosyncrasies and future probabilities. Because of all these things, no guarantee of results can be given or asserted. Hence, unlike the bank, "Service advertisement" is closed to the professional man.

In the selling of commodities in the business world, price has a compelling interest and a large part to play in commercial advertising. The price is supposed to bear some definite relationship to the cost of the article, taking into consideration overhead expense and the necessary profit. In contrast to this, the physician cannot announce his price before he sees the patient, because of the aforesaid uncertainties involved. There must be a flexibility of professional fees, since so many other elements enter into the problem. One of the most important of these is the patient's ability to pay for the services rendered. Commercial commodities are priced the same to everyone who buys them. No variation in price is made by the merchant to comply with the financial status of the customer. In the practice of medicine this has never been the case. The majority of physicians grade their charge for services rendered according to the ability of the patient to pay. This must be, as fundamentally the practice of medicine is a humanitarian profession, and from the time of Hippocrates the doctor has cared for the sick whether he lived in a hovel or in a mansion. So if the physician should attempt to advertise his ability and skill, he could not quote prices on that which he is trying to sell.

In reality, then, the physician has very little to advertise. In this he is very much like members of any other profession. The requirements which

have been laid down as a code of medical ethics are not matters of etiquette peculiar to this profession. They are such requirements as all professions strive to establish and maintain. Such ideals distinguish the gentleman from the huckster. Ethics have a most important part in the practice of medicine, because human life has a higher value to civilization and the community than property.

The code of ethics of the medical profession as published by the American Medical Association has the same basic principles as the Oath of Hippocrates, which was written over 2,000 years ago, but with modifications to suit the practice of medicine of the present time. This code of ethics is a creed rooted in the honor and unalterable principles of human relationship. "What you do not like when done to yourself, do not do to others!" said Confucius, and this maxim, reinforced by the precept and example of the First Christian, has become a beacon light for civilization and a lode star for medicine. This code imposes certain restrictions upon the conduct of physicians, but they are no greater in their own way than the restrictions imposed on gentlemen by every day convention. This code refers to advertising in the following manner: "Solicitation of patients by physicians as individuals or collectively in groups of whatsoever name these be called, or by institutions or organizations, whether by circulars or advertisements, or by personal communications, is unprofessional. This does not prohibit ethical institutions from a legitimate advertisement of location, physical surroundings, and special class—if any—of patients accommodated. It is equally unprofessional to procure patients by indirection through solicitors or agents of any kind, or by indirect advertisement, or by furnishing or inspiring newspaper or magazine comments concerning cases in which the physician has been or is concerned. All other like self-laudations defy the tradition and lower the tone of any profession and so are intolerable. The most worthy and effective advertisement possible, even for a young physician, and especially with his brother physicians, is the establishment of a well-merited reputation for professional ability and fidelity. This cannot be forced, but must be the outcome of character and conduct. The publication or circulation of ordinary simple business cards, being a matter of personal taste or local custom, and sometimes of convenience, is not, per se, improper. As implied, it is unprofessional to disregard local customs and offend recognized ideals in publishing or circulating such cards.

It is unprofessional to promise radical cures; to boast of cures and secret methods of treatment or remedies; to exhibit certificates of skill or of success in the treatment of diseases; or to employ

any methods to gain the attention of the public for the purpose of obtaining patients."

Thus it is that there is a difference between advertising that is in bad taste and the advertising that is distinctly unethical. No fault is found with the physician who announces in the lay press that he has changed his location, or who publishes his card giving location, hours, and perhaps the specialty he practices, providing he does not attempt to exploit himself through the claim that he possesses unusual ability, qualifications or equipment, or that he accomplishes wonderful results in the treatment of any of his cases. On the other hand, when a physician exploits himself by giving for publication or permitting to be published, accounts of his successes in professional work, or holds himself out as better qualified to care for the general or specific ills of the community, he breaks all the rules of decency and ethics and deserves condemnation. Nor is it considered good taste for any physician to have his name attached to reports of the illness or recovery of his patients published in the lay press. The illness of the individual may be very well considered as news, but the fact that Dr. So-and-So is treating him or that Dr. So-and-So reports such-and-such is neither news nor in good taste in the eyes of the medical profession as a whole. In very few instances are doctors' names coupled with news of this kind, unless the doctor himself reports the matter, and very few of the newspapers will publish the doctor's name in this connection against the wish of the attending physician. This kind of advertising is not against any rule or law. It is just poor taste.

If the above quoted portion of the code of ethics of the medical profession were done away with, and every physician allowed to state his opinion of himself and his skill in advertisements to the laity, the public would really be the one to suffer. No doubt the physician with the largest appropriation for advertising and the best advertising manager would become the most in demand by the public, regardless of his skill or ability. But it should be remembered that the actual value of a commodity of commerce is not increased by the advertising of it to the world. Likewise, the skill, knowledge and wisdom of a physician cannot be increased by his press agent, nor by the size of his advertising appropriation.

The wisdom of professional ethics prohibiting advertisement is plainly justified as exhibited by the character of such professional advertisements as have appeared. These are, if not actually untruthful, usually misleading in character. The practice that this advertising represents is so often unscrupulous that professional advertising has come to be looked upon as a badge of quackery,

not alone by the profession, but by all observant and thinking people of a community. This we believe is good. The advertising doctor shows himself to the public in his true light. There are many ways for the public to obtain information concerning the conscientious physician other than by looking through the advertisements in the lay press.

The physician has a means of legitimate advertising. If he so conducts himself that his fellow physicians recognize his ability and knowledge, if he produces papers on original work, he will obtain the best advertising possible, and that through the reputation he creates among his confreres. If any physician has anything of true value, including knowledge, he will not have to announce the fact in the lay press. The valuation of success will be all that is necessary. Such a light will not stay hid.

The medical profession has for some time past been carrying on a campaign of education of the public, which might be considered as advertising, though not of the profession, nor of the individual in that profession, nor even of the ability of the profession to treat diseases. This has been a campaign for health, and an attempt to teach the public the advantages and the means of staying well and of avoiding ailments of various kinds. The profession has endeavored through publicity of this kind to improve the general health of the community, to reduce epidemics, and to stave off the degenerative diseases of advancing age. This has been, and is, an advertising campaign that will benefit the public and no one else. To the advertising manager or agency this would seem to be very poor and unprofitable advertising—foolish at least—because in such a campaign the medical profession is attempting to teach the public to avoid illness and therefore have less need for physicians and their medicines. This is advertising that does not increase but tends to decrease the business of the profession. But this is a part of the creed of the profession.

The advent of the radio has added a new and wholesale approach of medicine to the public, and has brought with it, perhaps as yet unappreciated, opportunities, privileges and obligations—opportunities and privileges of awakening interest in the scientific attainments of medical science and of exposing quackery both within and without the profession; obligations to broadcast information to those who are interested concerning the prevention of disease, the control of epidemics, and last but not least, the value of health examinations. But as in all other methods of spreading news and information to the public, the quack and the charlatan has learned to use this medium for the

dispersion of spurious information concerning himself and his alleged cures. No need to do more than mention this because of the amount of publicity recently given to two such instances.

In closing, I wish to quote a paragraph from the book, "The River of Life," by John St. Leo Strachey—a paragraph which I believe epitomizes the justification of the present code of ethics of the medical profession. "I say without the slightest fear that I may be overstating my case, that there is no profession which is more exposed to the temptation to forget honor, humanity and kindness than the medical profession and none in which the exploitation of human suffering is easier. Yet there is none in which the temptation is so triumphantly withstood. Let this be remembered by the public when they feel inclined to sneer at medical ethics and to speak of them as if they were a code for maintaining selfishness and enrichment. Medical ethics is the salvation of the patient. It is the one thing which stands between him and the dangers of exploitation. It is what makes him and his sufferings hold the dominant part in the dread dramas of pathology."

Case Report

ABSTRACT OF A CLINIC*

A. D. DUNN, M.D., Omaha

I shall present some instructive features from several case histories for the lessons that they teach. No attempt will be made to present any case in detail. You will have to take it on faith that the cases presented have been studied adequately.

CASE I.

It is often accepted as axiomatic that one should never diagnose two major disease conditions in one patient at the same time. While it is commendable practice to try to fit all symptoms into one disease picture, yet such a method frequently leads to error.

F. B., a banker aged sixty, entered the hospital April 21, 1930. His health had been failing for some time, although he dated the onset of his trouble from an attack of acute lumbago three weeks previous.

Examination showed a poorly nourished, somewhat anemic appearing, somewhat disorientated man with a stiff back and a purpura. He was febrile, his temperature varying from normal to 101. His pulse was 80 to 90. It is to be noted that there were no gastro-intestinal symptoms and nothing in the physical ex-

amination to indicate any major gastro-intestinal trouble. There was extensive peridental and alveolar pathology. The tonsils were infected. The examination of the sinuses was negative.

The urine examination showed a trace of albumin. The hemoglobin was 63, red cells 3,240,000, leucocytes 9,500 with 75 per cent polymorphonuclears. The blood Wassermann was negative. The coagulation time was four minutes, bleeding time three minutes, blood platelets 210,000. Blood cultures were negative.

On account of the obvious toxic condition of the patient, a gradually increasing pulse rate, and a conviction that there was a small abscess under the left tonsil, a tonsillectomy was done on May 2 and an abscess containing about 2 c.c. of creamy pus found. This was preceded by a blood transfusion which had brought the hemoglobin up to 70. The tonsillectomy was followed by moderate bleeding and a broncho-pneumonia. This storm, which was most severe, was weathered only by the use of an oxygen tent for seventy-two hours.

After two more transfusions (May 5 and 10) the sensorium cleared, the purpuric areas disappeared, and the temperature came down to normal, but the pulse rate gradually rose. Also the blood failed to hold, even with the transfusions. The hemoglobin gradually dropped to 43, with red cells 2,330,000. The patient died from acute heart failure on May 17.

The clinical diagnosis was *infectious purpura* with acute myocarditis as the immediate cause of death, incompletely resolved broncho-pneumonia at the base of both lungs, and secondary anemia.

Pathological diagnosis: Myocarditis +4, typical tiger heart; carcinoma of the lesser curvature of the stomach measuring 2½ cm. x 4 cm., metastases into the retroperitoneal glands and into the lungs, the latter revealed only by microscopic examination.

The explanation of the patient's symptomatology is clear in the light of the autopsy: an infectious purpura of tonsillar origin, which was checked by the removal of the tonsils, but not in time to prevent extensive damage to the myocardium. The failure of any regenerative power on the part of the hemopoietic system is explained by an asymptomatic carcinoma of the stomach, which was already metastasizing into the retroperitoneal lymph glands and lungs. The failure of the lungs to completely clear after the broncho-pneumonia is explained by the fine carcinomatous metastases in both lower lobes.

Two distinct pathological processes contributed to the exitus.

CASE II. ASPERGILLUS INFECTION OF THE HAND

It is well to remember that organisms commonly considered non-pathogenic may acquire definite disease producing properties.

J. E. H., a farmer aged thirty-seven, consulted us January 13, 1928, for an indurated lesion on the back of his hand of two years' duration, which had been subjected to various forms of treatment. He at-

*Presented before the Eighth Annual Assembly of the Twin Lakes District Medical Society, Rockwell City, June 12, 1930.

tributed his trouble to a pimple which failed to heal while husking corn. The lesion presented itself as an ulcer with a crater about 15 mm. in diameter, with an indurated, purplish border 7 to 9 mm. wide. Only a staphylococcus was obtained on blood agar cultures made from this pus. On the assumption of the trouble being a staphylococcus infection, x-ray therapy and moist boric acid packs were administered intermittently without improvement for six weeks. Cultures made on Sabourand's media yielded an aspergillus, a fungus which is usually non-pathogenic. A modified Bordeaux mixture (one per cent copper sulphate solution without the slaked lime) was applied locally alternating with a one per cent copper acetate ointment. Healing was complete in two months and has remained so for four years.

Fungus infection occasionally explains weird clinical syndromes.

I wish to use the remainder of my time to present in brief several cases illustrative of the chronic sinusitis problem.

Last week a well-known physician who was suffering from a myocarditis with nephritis said: "I can't help it, Dunn, but there will be no operations on my sinuses." He had an extensive mouth infection with involvement of the floor of both maxillary sinuses which were radio-opaque, a leucocytosis of 16,000, beginning cardiac failure, alubuminuria with casts; obviously a problem in infection with no other likely source. Yesterday a physician was telling me his troubles, clearly infectious in character, preparatory to submitting to an examination. I interpolated: "It sounds like a sinus."—"I want to tell you before we begin, they'll not operate on my sinuses." He had an enlarged, rapid heart, pus in the urine, a leucocytosis of 13,000, gave a sinus history and complained of weakness. Almost daily we see patients who have decided before consulting us that if their trouble is due to sinuses, they will not submit to operative measures. The same day that the latter physician so firmly forestalled any operative advice, a man came into the office, his eyes bleary and drooping, his face puffy, his color sallow; he complained of weakness, sweating on the least exertion, restlessness at night and day. He said, "I feel like Hell." Three weeks earlier he had had an acute upper respiratory infection, which had cleared up under treatment by a leading rhinologist. There were no secretions in the nares or pharynx and the patient had been discharged a few days prior. The facies and the history made the diagnosis. The right maxillary sinus was radio-opaque and contained pus. Obviously something is wrong in our conception, diagnosis and treatment of sinus disease when such experiences are common occurrences.

Last winter I made a rather thorough survey of recent rhinological literature as it pertained to

sinus disease. I learned many things but was struck with the complete lack of any unanimity of opinion and with the almost constant absence of any comprehensive plan of attack to determine the relationships, if any, of sinus disease to systemic invasion of the organisms by bacteria resident in diseased sinus mucous membranes. That bacteria entering the blood stream from foci of infection may show elective localization and produce disease in organs at a distance from such foci is probably the most important conception that has been given to clinical medicine in the last fifty years. In treating conditions arising at a distance from such foci of infection the first move under present day methods is to excise the source of infection. The modern technique for tonsillectomy and for the removal of mouth infection by alveolectomy meets the requisites of a sound clinical experiment. The common drainage procedures as applied to the sinuses are effective in acute and subacute conditions, but fail dismally where chronic pyogenic and hyperplastic membranes are involved. From the standpoint of eliminating an infection the usual operative procedures for such conditions are obviously futile. We have long since ceased to treat chronic tonsillar infections by local applications. How absurd are intranasal drainages and local applications when the infection lies in the chronically inflamed, hyperplastic mucous membranes lining the sinuses. To accomplish a removal of such sources of infection excision of the diseased mucous membrane en masse is essential.

CASE III

A young lady, single, nineteen years of age, entered the Hospital March 25, 1929, with an acute rheumatic fever.

She ran a febrile course for the first four weeks in the hospital. The peak reached 103 degrees. A nasal discharge had stopped, and with an increase in symptomatology, we decided to drain a cloudy left maxillary sinus, despite the precarious condition of the patient. In five days the temperature reached and held the base line, with general improvement in the condition of the patient. The patient has remained well to date.

From the history, findings and clinical course one would be justified in assuming an acute recrudescence on a rheumatic basis of a chronic endocarditis at either the mitral or aortic valve, or both, for the patient had a double valvular lesion. The leucocyte count and fever were in keeping with that supposition. Because there was a cloudy maxillary sinus and a history of an onset with an acute upper respiratory infection, we decided to play the maxillary sinus as a source of infection with or without an active endocarditis. The out-

come justified the course. A condition presumably offering a precarious prognosis became relatively benign. Serious re-infection, if any, of the endocardium had not occurred; the sinusitis was responsible for the febrile course.

A diagnosis of acute infectious endocarditis without excluding acute or subacute paranasal sinusitis is hazardous.

CASE IV

A young married woman of 23 entered the hospital, with a severe asthma, July 27, 1929. There was a history of repeated respiratory infections, with "pneumonia" at four, seventeen and at nineteen, when she was sick six weeks. The first attack of asthma occurred in August, 1926. For six months prior to coming in, the asthma had been terribly severe. She had changed climate three times. Elimination diets and protein tests failed to reveal any ordinary allergic factors. Both maxillary sinuses were radio-opaque and filled with polypi. Radical operative procedures brought almost immediate cessation of the asthma. Three months after the operation the patient was perfectly well without a bit of asthma.

CASE V

An elderly woman had suffered from asthma for twenty years. During the past two years her asthma had increased in severity and had become life threatening on account of impending heart failure. A careful history elicited the interesting fact that the onset of the asthma had just preceded extensive dental work involving many of her upper teeth. The patient volunteered the information that her teeth were very bad at that time. Changes of climate, hygienic, dietetic, and medical regimes had been instituted. During the last two years the asthma had become practically constant and was controlled only by several hypodermics of epinephrine daily. There were no abnormal secretions in the nose and only a chronic tumefaction of the left inferior turbinate was found. Radiograms showed only moderate increase in density at the base of the left maxillary, which lipiodol confirmed as polypoid. Teeth films revealed marked alveolar disease in the left side with quite evident involvement of the maxillary sinus floor of dental origin. A combined alveolectomy and Caldwell-Luc operation was performed with complete removal of all the alveolar disease, the floor of the maxillary sinus and its lining membrane. Only one hypodermic of epinephrine was used after the operation. The patient was asthma free within twenty-four hours and has remained so to date (six months). The history and the radiograms determined the sinusitis and asthma in this case to be dental in origin. The operation and the subsequent clinical course have confirmed it.

The fact that occasionally abscesses occur in the walls of the maxillary sinuses was emphasized through the use of gross and microscopic pathological material. It was urged that operations of this type be performed only by men of broad

experience who have made themselves familiar with the technique; that operations should be resorted to only after most careful case analysis; that curretting such sinuses is an unjustifiable procedure as it may result in more damage than benefit; that curretment in no way satisfies the demands of a good experiment.

College of Medicine State University of Iowa

*(From the Proceedings of the University
Hospital Medical Society.)*

THE FIBRINOGEN OF THE CIRCULATING BLOOD

H. P. SMITH

*From the Department of Pathology and
Bacteriology*

The amount of fibrinogen in the blood, and its possible uses in the body have been the source of much speculation and experimentation. Its function in hemostasis is evident to all. The older workers have reported that blood taken from arteries yields more fibrin than that from veins, and that blood from hepatic or renal veins contains little or no fibrinogen whatever. This led to the idea that fibrinogen is a transport foodstuff, and is rapidly formed by certain organs, only to be rapidly consumed by others. More recent observations fail to confirm those of forty or fifty years ago. It is now rather generally admitted that the earlier analytical methods were at fault. With improved methods of analysis the variations are found to be much less, though in disease the fluctuations may be quite large.

Earlier workers observed that the blood clots formed in cases of pneumonia were often very tough. Even with the crude analytical methods of thirty years ago it was possible to show that there was a decided increase in fibrinogen above the normal. More recently Whipple and Hurwitz¹ and Foster and Whipple² extended these observations and showed that bacterial action was not necessary. A sterile turpentine abscess in the subcutaneous tissues will stimulate an over-production of fibrinogen, and the level in the blood stream may rise to two or three times the normal, and this may happen within the course of forty-eight hours.

The ease and rapidity with which fibrinogen may be formed can be shown by transfusion experiments. Large amounts of blood may be withdrawn from animals, if at the same time equal quantities of defibrinated blood are injected. By such technic it is possible to replace almost all the

normal blood with defibrinated blood. As a result, the blood fibrinogen may be reduced to very low levels in the course of a few minutes. The value is normally about 250 mg. per 100 cc. plasma. It may be reduced to 25 or 50. In such an animal the level may rise from this value of 25 to a value of 75 in the course of six hours, and within twenty-four hours it is usually back to normal.^{2,3,4,5}

Evidence is gradually adding strength to the belief that the liver is concerned in the formation of fibrinogen. Whipple and Hurwitz¹ and Foster and Whipple² showed that chloroform anesthesia produces extreme necrosis of the liver and marked diminution in blood fibrinogen. They concluded that injury to the liver interrupts the formation of fibrinogen. They showed also that a turpentine abscess in the subcutaneous tissues does not result in a rise of blood fibrinogen, if the liver has been injured by chloroform. Presumably liver activity is needed to produce this excess of fibrinogen.

According to Meek,⁴ ligation of the blood supply of the liver prevents the above-mentioned regeneration following perfusion. Unfortunately his animals did not live more than a very few hours, and for this reason the test was not a rigid one. Mann and Magath⁶ described a technic for complete removal of the liver, and they found that the life of the animal could be prolonged by intravenous injection of glucose. Mann and his colleagues⁷ have reported having made some observations on blood fibrinogen following hepatectomy, but they give no data. They incline to the belief that the liver is important in keeping blood fibrinogen at the normal level.

Dr. T. B. Jones and I⁵ have removed the livers from a number of dogs. The blood fibrinogen begins to fall quite promptly, and within twelve to fifteen hours somewhat over 20 per cent has disappeared. Within twenty hours only half of the fibrinogen may remain in circulation. This strengthens the belief that liver activity is essential, if the normal level of blood fibrinogen is to be maintained.

Very little, indeed, is known concerning the rate at which fibrinogen is utilized in the body. In disease the large inflammatory exudates must at times require large amounts of fibrinogen for their formation (e.g., pneumonia, peritonitis). Foster and Whipple suggest that much fibrinogen must be used in daily life to plug up tiny leaks which they visualize as being produced in smaller vessels by trauma, muscular activity, etc. They would lead us to believe that purpura may be expected to result whenever coagulation is defective and these numerous unavoidable breaks in

capillaries are not promptly sealed with fibrin, as they normally are.

We have some reason to believe that at times fibrinogen may be destroyed within the body by ferments or tissues which are normally inactive in this respect. We have obtained evidence⁵ to show that peptone injection into liverless dogs causes destruction of part of the circulating fibrinogen. We have observed that the fibrinogen may fall 50 per cent in the course of thirty minutes.

In conclusion, evidence points to the liver as being essential to the formation of fibrinogen, but we must keep in mind the fact that the rate of fibrinogen utilization may at times be quite rapid. The amount of fibrinogen in the blood stream represents a balance between formation and utilization. All evidence supports the view that the liver is an important organ in the maintenance of a healthy balance.

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SARCOMA OF THE UTERUS DIAGNOSED NINETEEN DAYS AFTER NORMAL FULL TERM DELIVERY

Case Report

H. C. HESSELTINE, M.D.

From the Department of Obstetrics and Gynecology

Sarcoma of the uterus is definitely infrequent. McClellan¹ estimating that it is diagnosed in 1.8 to 5 per cent of all uterine malignancies. Corscaden and Stout² explain this variable incidence by the different criteria employed, some observers making the diagnosis only in the presence of mitotic figures, while others demand positive evidence of extension and invasion with loss of cell boundaries. The latter view is more generally accepted.

Such malignant changes occur most frequently in the myometrium or in fibromyomata. Corscaden and Stout² found malignant changes in 0.39 to 0.5 per cent of their series of fibroids. Sarcoma of the endometrium is so rare that it remains a medical curio.

Six cases of sarcoma of the myometrium or of fibromyomata co-existing with an intra-uterine pregnancy have been reported in recent literature. It is asserted that the growth of such malignancies

is accelerated during gestation, the increased vascularity of the uterus probably being concerned. Only one endometrial sarcoma associated with pregnancy has been found in literature. In this instance the diagnosis was made five weeks after

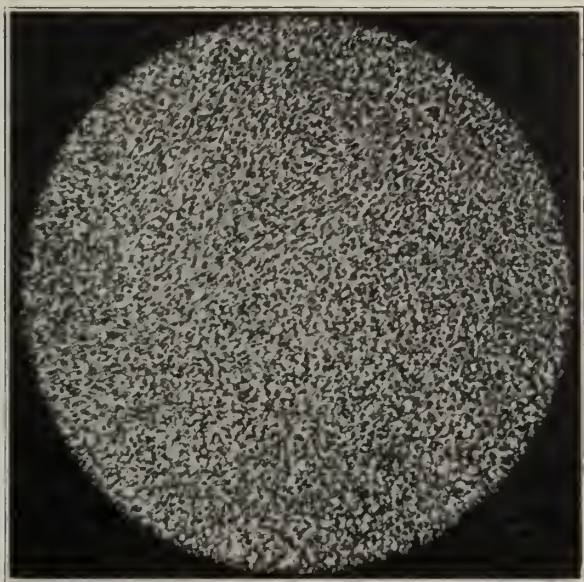


Figure I—Low Power Magnification

delivery³. This patient was forced to consult the clinic because of a febrile course developing some time after the first postpartum week. The slightly enlarged uterus had eleven separate areas of sarcoma with one area extending through the uterine wall.

CASE REPORT

Mrs. L. K., D9290, aged thirty-eight, was admitted to the obstetrical ward on December 30, 1929, for routine antenatal care. The patient had always been healthy. Menarche at the age of thirteen was followed by regular cyclic periods. Six previous pregnancies had terminated spontaneously at term with the six siblings still living and well. The first labor lasted fourteen hours, the others from two and one-half to six hours.

The last normal menstrual period began on February 20, 1929. Nausea and vomiting began with the third week of gestation, became less troublesome after the sixth week, but persisted until the seventh lunar month. Constipation was invariably associated with inactivity during this pregnancy. During the summer of 1929 transient edema of the feet and ankles was noted.

Examination revealed a term pregnancy with the fetus in R.O.P. The uterus was regular in contour and seemed normal. A rectocele, cystocele and a badly lacerated cervix were obvious.

On January 2, 1930, a female child weighing 4,481 grams was born spontaneously after a labor lasting six hours and twenty minutes. The placenta was delivered by simple expression with a maternal blood loss of 500 c. c. Immediately after the third stage the relaxed outlet was repaired.

The fifteen days of normal convalescence were suddenly interrupted on January 17, 1930, by a chill, with a fever of 103.8° and a pulse of 120. The white count was 17,200 (80 per cent polymorphonuclear leucocytes, 15 per cent small lymphocytes, and 5 per cent large lymphocytes). The lochia was abundant and purulent but not especially foul smelling. The uterus was well above the brim of the pelvis. Even with treatment for uterine infection the intermittent fever continued daily. On January 21, 1930, when the uterus was the size of a four to five lunar months' pregnancy, dilatation and curettage produced a few blood clots, and an abundant "pinkish friable tissue." Considerable purulent material was released from the uterine cavity. The temperature fell at once and remained essentially normal thereafter; concurrently the uterus decreased rapidly in size. Microscopic examination of the tissue revealed a typical mucosal-cell sarcoma with definite evidence of invasion and extension.

Extripation of the entire uterus, both tubes and both ovaries on February 3, 1930, was followed in a few days by deep X-ray therapy. The speci-

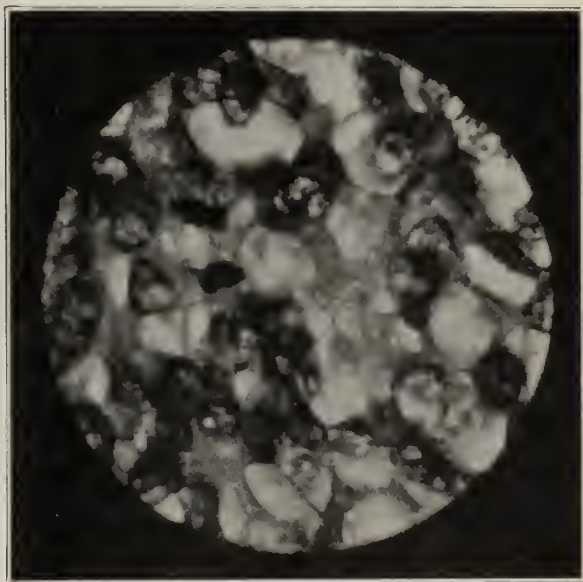


Figure II—Oil Emersion Magnification

men revealed a relatively early malignancy without extra-uterine extension as noted in the following excerpt from the pathologist's report. "The mucosa seems to have been entirely replaced by a

dull opaque yellowish tissue. This merges indefinitely into the muscularis. There are two rather indefinite nodules in the posterior wall which on cut section appear to be composed of a yellowish soft tissue." Microscopic appearance again confirmed the diagnosis of mucosal-cell sarcoma.

In April, 1930, and again in August, 1930, the patient returned for radiation therapy. No evidence of recurrence or metastasis could be elicited on these admissions.

SUMMARY

This sudden elevation of temperature with the enlargement of the uterus may be explained by the malignancy becoming infected along with the formation of a hemato-pyometria. The establishment of drainage would explain the clinical course following curettage.

Sarcoma arising from the stroma of the decidua and endometrium is an extremely rare occurrence. In this case it seems probable that the malignant change may have antedated delivery, although it is impossible to prove this contention.

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NEW DEPARTMENT OF HEALTH AT UNIVERSITY

Official announcement was made on October 14 of the establishment of a University Department of Health, the expressed function of which is to promote, preserve and protect in every possible way the health of those within its jurisdiction. As this is a matter of vital interest to present and future students, their parents, alumni and patrons of the University, certain details in regard to the organization and program are of more than passing interest.

While the University conducts no extra-mural public health activities, the newly organized department does provide a medium through which the rules, regulations and recommendations of the State Department of Health can promptly be carried into effect. Dr. Steelsmith, State Commissioner of Health, has approved both the plan of organization and the program of activities. The department is equally ready to cooperate with the local city and county health authorities in the enforcement of their public health regulations.

On July 26 of this year a University Board of Health was appointed by President Jessup, with jurisdiction over all health matters within the University. This Board consisted of the following members: H. S. Houghton, M.D., Professor and Dean of the College of Medicine, Chairman; C. E. Seashore, Professor and Head of the Department of Psychology and the Graduate College; R. E. Rienow, Dean of Men; Fred M. Smith, M.D., Professor and Head of the Depart-

ment of Theory and Practice of Medicine; Miss Elizabeth Halsey, Professor and Head of the Department of Physical Education for Women; E. H. Lauer, Professor and Director of the Division of Physical Education; Milford E. Barnes, M.D., Professor and Head of the Department of Hygiene and Preventive Medicine, Secretary.

At its meeting on October 3 the Board adopted a program which included the organization of a University Department of Health, with Dr. Milford E. Barnes as Director. The department comprises the following divisions: (1) Inspection Division, supervised by Jack J. Hinman, Jr., Associate Professor of Sanitation and Chief of the Water Laboratory; (2) Communicable Disease Division, supervised by Dr. C. F. Jordan, Assistant Professor of Hygiene and Preventive Medicine; (3) Life Extension Division, supervised by Dr. C. I. Miller, Instructor and Chief of Student Out-Patient Department; (4) Student Out-Patient Division, supervised by Dr. C. I. Miller; (5) Records Division, Mrs. Florence Musack, Secretary.

The services which the University Department of Health is prepared to render are of obvious importance. In so far as it is possible to do so, a barrier is being created across the paths through which disease most commonly spreads; namely, the water supply, the milk supply, food handlers and other avenues of personal contact. The cooperation of the University authorities and the entire student body will be enlisted to aid this organization in its program of health preservation and promotion.

NEW AND NON-OFFICIAL REMEDIES

The following articles have been exempted and included with the list of Exempted Medicinal Articles (New and Nonofficial Remedies, 1930, p. 477):

E. R. Squibb & Sons.

Tablets Digitalis Leaves-Squibb 1 Cat Unit (approximately 1½ grains).

Tablets Digitalis-Squibb 1 Grain (10 minims U. S. P. tincture).

C. M. Sorensen Co., Inc.

Inhalant Pine Camphor and Eucalyptol-Sorensen.

Nonproprietary Articles

Quinine Bismuth Iodide

Sodium Potassium Bismuthyl Tartrate

Eli Lilly & Co.:

Ampoules Glucose (Dextrose, U. S. P. O. Lilly 50 Gm., 100 cc.

Parke, Davis & Co.:

Parke, Davis & Company's Cod Liver Oil with Viosterol 5 D.

Sandoz Chemical Works, Inc.:

Scillaren

Tablets Scillaren.

Solution Scillaren.

Scillaren-B

Ampules Scillaren-B.

Mead Johnson & Co.

Mead's 5 D Cod Liver Oil with Viosterol.

STATE HEALTH COMMISSIONER'S PAGE



D. C. Sturtevant, M.D.



The most prevalent diseases during the month of October were scarlet fever, chickenpox, poliomyelitis, diphtheria and smallpox in the order named.

SCARLET FEVER

This disease showed a decided increase over the figures for the previous month, jumping from 94 to 170 cases. Testimony from all over the country is to the effect that the disease is very mild. Complications are relatively rare although they do accompany "light" cases. Scarlet fever, scarlatina and scarlet rash are different names for the same condition. Each is as communicable as the others and all should be subject to the same rules of quarantine. "Missed" cases, both those which are not seen by doctors and those seen, but in which diagnosis of scarlet fever is not made, are responsible in a large measure for the spread of the disease. The total number of cases of scarlet fever reported during 1929 is 4,315. In the ten months of 1930, 2,242 cases have been reported.

CHICKENPOX

Chickenpox increased from 23 cases for September to 103 cases for October. During 1929, 1,994 cases were reported. Thus far in 1930, 1,562 cases have been reported.

POLIOMYELITIS

Seventy-five cases of acute anterior poliomyelitis were reported during the month, making the total for ten months of the year 185 as compared with 76 cases for the whole of 1929. All of the 185 cases with one exception have occurred since July 1, there being 9 in July, 16 in August, 84 in September.

Cases were reported in every month of 1929, with the largest number (26) occurring in October. The year 1930 has seen the greatest number of cases since 1922. Just what relation, if any, there may be between a heavy frost and a reduction in the number of cases of poliomyelitis is not known, but it is a fact that there was a marked reduction in the number of cases reported during the second week after the heavy frost which occurred early in October, the cases dropping from 21 to 14. Another marked decrease was noted after a second

lighter frost, cases reported dropping from 14 to 4. There have been approximately 18 deaths from the disease, nearly all being ascribed to the type which attacked the respiratory muscles. Case records to the number of 150 have been received and are still coming in. Analysis of these records will be made and the findings reported in a later issue of the JOURNAL.

DIPHTHERIA

Diphtheria showed a marked increase, 44 cases as compared with 17 cases reported in September. Forty-four cases in one month are too many and are interpreted to mean that toxin-antitoxin for immunization is not being used to the extent that it should be. More than 400,000 children in Iowa have been treated and as a result the number of deaths from diphtheria has been reduced from a yearly average of 242 for the five-year period ending 1924 to 34 for the year 1929. The number of cases reported has decreased from 1,036 in 1925 to 397 for 1929, with 303 cases for ten months of 1930. For nine months of the present year the number of deaths is 31, which means that the total for the year will exceed that for 1929. The decrease in the number of cases and deaths should not be allowed to engender the feeling that continued use of toxin-antitoxin is not necessary, but should rather give impetus to the movement for protecting the child population from diphtheria against the time when the disease will be as rare as yellow fever or cholera.

TYPHOID FEVER

With a sense of gratification a marked decrease in the incidence of typhoid fever is noted. During ten months of 1930 there have been no outbreaks of this disease such as marred the typhoid record of 1929. That year saw the greatest number of cases ever recorded in the history of Iowa. Two hundred eighty-eight cases were reported. This was 67 cases more than for any year since 1923. For ten months of 1930 there have been only 76 cases. To the date of going to press there were 15 cases reported in November, making a total of 81 cases. At this rate the year 1930 bids fair to be a banner typhoid year and will afford a target at which to shoot in years to come.

The JOURNAL of the Iowa State Medical Society

ISSUED MONTHLY

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Nephrology

IV EDEMA

The most conspicuous and constant symptom of glomerulo-nephritis is the increase of fluid in the tissue spaces. Volumes have been written on the causes and pathogenesis of edema. This is not the place for an attempt at evaluation of the various theories which have been propounded, but Fishberg holds that there are three prime factors responsible for the various types of edema found clinically, viz.: first, increase of the hydrostatic pressure in the capillaries; second, increase of the permeability of the capillaries and third, decrease of the colloidal osmotic pressure of the plasma. He considers the second and third to be responsible for the edema found in glomerulo-nephritis, but the evidence he presents for his view is not convincing. It is an undeniable fact that the characteristic lesion of this type of nephritis is a diffuse plugging of the glomeruli and the more diffuse and generalized the glomerular lesions are, the more pronounced is the fluid retention. As the inflammatory process in the glomeruli subsides, the edema decreases; hence, for practical purposes, the edema may be considered due to the failure of the filtration process in the diseased kidneys.

It must be borne in mind that in adult persons from five to ten liters of fluid may accumulate in the tissue spaces without being perceptible to the eye or detectable to the palpating finger. The edema is general, but it makes its appearance and accumulates in the largest amounts where the least resistance is offered to the escape of the fluids from the blood, e. g., under the eyelids, in the neck, in the external genitalia and in the body

cavities. The fluid is, of course, obedient to the laws of gravity.

The edema is responsible for most of the symptoms of glomerulo-nephritis. Thus, the paleness of the skin, suggesting anemia, is due, in the acute stages, entirely to the excess fluid in the skin. In the subacute and chronic stages, the pallor is due, in a greater and greater degree, to a developing secondary anemia, which in some cases becomes extreme toward the end. Cases have been reported where death has been produced by edema of the glottis, and there is no doubt but that the nausea, the anorexia and the diarrhea encountered in glomerulo-nephritis are due to edema of the gastro-intestinal tract. Similarly, the languor of the disease is best explained on the basis of the excess fluid which bathes the cells. Again, the persistent and often severe headaches and the delirious type of pseudo-uremia are best explained by the edema of the brain. In the late stages of the disease when the body's resistance has been undermined, the edematous fluid in the body cavities forms an excellent culture medium for pathogenic bacteria. Hence, it is common to find that the immediate cause of death in cases of glomerulo-nephritis is either a fibrinous peritonitis, pleuritis or pericarditis, or two or even three of these combined with a hypostatic pneumonia.

BLOOD PRESSURE

As has been indicated before, the blood pressure level is at or near the normal during the acute stage of the disease and may continue normal during practically the entire chronic stage in those rare cases where scarring of the kidneys is slight—the so-called true nephrosis. In the vast majority of cases of glomerulo-nephritis, however, the blood pressure begins to rise when the acute stage passes into the more chronic, and it continues to rise as the heart hypertrophies and the scarring progresses, to reach very high systolic and diastolic levels before the heart begins to fail. There is far less fluctuation in the systolic blood pressure level in chronic nephritis than there is in hereditary hypertension. When hypertension makes its appearance, there are added to the symptoms due to edema those due to high blood pressure. These will be discussed in greater detail under "Hypertensive Renal Disease." Here it must suffice simply to catalog these symptoms.

First—The first and most constant symptom is hypertrophy of the left ventricle, which may lead to congestive heart failure.

Second—The output of the water in the urine may actually increase as the edema decreases, with a consequent lowering and fixation of the specific gravity.

Third—The development of the characteristic albuminuric retinitis.

Fourth—The development of the symptoms that Fishberg groups under "Hypertensive Encephalopathy: i. e., the delirious and convulsive type of false uremia.

Fifth—Renal failure to eliminate protein metabolites, with the development of a true uremia.

COURSE

The majority of cases of acute glomerulo-nephritis terminate in from one to eight weeks, and recovery may occur even after the disease has lasted for months. This may be complete, or there may be recurrences from time to time, for it is reasonable to suppose that not only the primary source may continue to be active, but that a kidney once damaged by glomerulo-nephritis may be more susceptible to further inflammatory changes than an uninjured one. The nephrotic type of glomerulo-nephritis may last for years or even decades. On the other hand, the chronic form which is associated with hypertension is usually fatal within one or two years.

DIAGNOSIS

Diagnosis of glomerulo-nephritis offers little difficulty. One should bear in mind, however, that congestive heart failure is associated with decreased output of urine, albuminuria, cylindruria, and even, in rare instances, hematuria.

TREATMENT

The prophylactic treatment of glomerulo-nephritis is by far the most important one. Nowhere is the present energetic and often over-enthusiastic search for foci of infection more justifiable than in this disease. The promiscuous removal of dead teeth, tonsils, gallbladder, or the puncture of diseased and normal sinuses seems almost justifiable here, since there is a primary focus responsible for nephritis, and if Longcope is right in his assumption that the continuous existence of such a focus renders the kidneys susceptible to the development of glomerulo-nephritis, it would seem to be logical to remove all suspicious areas as soon as they are discovered. Every clinician who has observed the prompt cessation of nephritis following a simple tonsillectomy cannot help but continue his search for the primary focus until every means has been exhausted.

Unfortunately, we do not possess at the present any specific biological or chemical treatment for glomerulo-nephritis. One is forced, therefore, to fall back on the very efficacious rest treatment. In this disease, the rest treatment must be directed first, to the securing of general rest for the entire

organism in order that it may marshal all its forces in the fight against the infection, and second, to obtaining rest for the damaged kidneys.

During the acute stage, bed rest is imperative. The patient must be put in a warm, dry room and kept there in as nearly a tranquil state of mind as possible. Annoying visitors should be excluded. Headaches and other disturbing symptoms should be relieved by analgesics, the patient should be given somatic and mental rest with an abundance of sleep and gastro-intestinal rest by the diet to be described below. Bed rest must be continued until the fever and leukocytosis have disappeared, and until the water balance has been restored and the red cells have disappeared from the urine, if the latter is at all possible.

DIET

Volhard goes so far as to begin his treatment of acute nephritis by a period of complete starvation lasting from one to four days, followed by a day or so of a bland diet, after which the starvation is repeated if the conditions warrant. This appears to be an unwarranted hardship, and over-emphasis of the essential principle, which is to give the kidney and the body as much rest as practicable. It would seem more wise to feed enough carbohydrates during the first few days to prevent starvation acidosis, but certainly the diet should be strictly limited and very bland. After a few days of semi-starvation, a maintenance diet must be gradually instituted. This should consist exclusively of easily assimilable foods containing .6 to 1.0 gram of protein per kilogram of body weight and the necessary amount of dry carbohydrate and fat for a maintenance diet for persons in bed. Since it is water principally that the kidneys are unable to excrete, it follows that the water intake must be curtailed as far as practicable without annoying the patient too much. This means that the total intake should be reduced to 800 to 1500 cc. in twenty-four hours. The patient may be given gum or something else to chew on to lessen the thirst. But the most efficient way to lower the fluid intake is the limitation of sodium chloride in the diet, and to me, this is the only reason for a salt-poor diet in this disease. The administration of a salt-poor diet to an intelligent patient is best accomplished by preparing the food without any salt and then serving a salt shaker with the food and admonishing the patient to use discretion. In this way, the food may be rendered palatable by the use of only a fractional amount of the salt required when salt is used with the cooking. There is no indication for protein restriction as long as protein metabolites in the blood remain at normal levels. In fact, in those

rare cases described by Epstein* in which the plasma proteins have been depleted by constant loss through the urine, his high protein diet seems logical.

Rest to the kidneys must be further augmented by elimination of water by the bowels and through the skin. Frequent catharsis is certainly indicated in any stage of glomerulo-nephritis, though I can see no reason for too frequent use of large doses of epsom salts or such a hydragogue as the irritating elaterin. But two or three watery stools should be produced each day when the edema is increasing. Similarly, the skin should be worked to its maximum capacity for elimination by keeping the patient in a warm, dry room with plenty of woollens and by the use of frequent sweat baths. Here again excesses such as giving two or three sweat baths per day are productive of little, if any, good and stimulating sweating by means of pilocarpin is usually more harmful than beneficial.

DRUGS

Certainly no diuretics are indicated in the acute stages. In the sub-acute or chronic stages, diuretics must be given a trial. While these are being administered, however, the patient should be under constant supervision, so that the effect of the drugs may be closely watched. I am in the habit of trying the caffein derivatives in small doses first, but Volhard uses large quantities of water, 1000 to 1500 cc., administered over a couple of hours, as a treatment for acute nephritis. I have never had the nerve to try water in this way. I prefer to try diuretin in doses of 0.7 gram three times a day, and even to increase the dose for a couple of days, and if no diuresis occurs, to stop it. If this is not effective, theophylline may be tried in 0.3 gram doses three times a day. Keith and his co-workers have obtained excellent results by using ammonium chloride or ammonium nitrate, or calcium chloride may be given in large doses—from 5 to 12 grams per day. The drugs may be given in enteric coated capsules if necessary. Keith and his co-workers are bold enough to use salyrgan or novarsural intravenously. These drugs give excellent temporary results. For the persistent headache, codein in combination with other analgesics produces happy results. Morphine or even chloroform may be necessary for the convulsions of encephalopathy. In the delirious type of false uremia, spinal puncture often gives prompt relief. Venesection is often of benefit to relieve convulsions. Intravenous injection of 20 cc. or more of 2 per cent solution of magnesium sulphate often produces excellent results. Magnesium sulphate per rectum is simpler and almost as efficacious. Magnesium

sulphate may also be given intramuscularly in doses of a 25 per cent solution.

Daniel J. Glomset, M.D., Des Moines.

BRINKLEY—THE POLITICIAN

"Anything is possible politically in Kansas." At the recent election, however, political dopesters failed to give proper credence to this time-honored statement and for this reason were found wholly unprepared to accept or account for the vote. "Dr." John R. Brinkley, of Milford, recently tried for gross immorality and unprofessional conduct, found guilty and barred from medical practice by the Licensing Board of the state, in an eleventh hour flourish of master showmanship so effectively upset party partisanship that, running as an independent, he secured 188,339 votes for governorship—28,862 less than enough to place him in the State House. His whirlwind campaign, carried on chiefly over the radio, was one of promises—promises which only one of super-human intelligence and herculean endurance could have fulfilled. He effectively used his martyrdom by the medical profession as an appeal for votes and established himself more firmly in the hearts of his listeners by likening himself to that greatest of all martyrs, the Christ. To further the illusion he descended from the heavens by airplane at psychological moments to address political gatherings over the entire state.

Kansas is still aghast at the cyclonic propensities of the campaign. Ostensibly seeking popular vindication, Brinkley no doubt finds comfort in the vote recorded, but when one views the political eccentricities of the state as manifested in such notables as "Sockless" Jerry Simpson, "Greenback" Whiskers and Carrie Nation, scant comfort remains. It would appear that the time was ripe for another William Allen White to again forge to fame by an editorial discussion of "What's the Matter with Kansas."

For those whose reading during the past few months has been restricted to Dr. Elliott's Five Foot Bookshelf, and may not know the illustrious Brinkley, a brief resumé of his activities may be permissible. Prior to his entrance into medical practice (Diploma fraudulent?) in Milford, Kan., some seventeen years ago, it appears that Brinkley was a preacher, but finding too little of financial gain possible in this field, sought the greener pastures of "specialism." It appears that from his first entrance into the medical work he found the twilight shadows that lurk on the outskirts of the profession most fitting for his purposes and skill. His masterpiece of economic achievement, however, was not attained until newspaper publicity attracted attention to a monkey gland trans-

* Epstein: American Journal Medical Science, 1917, 154.

plantation operation emanating from the surgical Mecca of Vienna—Eureka! “Dr.” Brinkley now became a gland transplantationist. The quest of Ponce de Leon for the Fountain of Youth has been satisfied. But such good news must be disseminated, and so Brinkley opened radio station KFKB and began building hospitals and hotels for the accommodation of the gullible.

The “jealous” medical profession, of which he posed as a member, began an investigation of his credentials and method which this fall resulted in the revocation of his license to practice, an action supported by the Supreme Court of the state. Considerable doubt was expressed by witnesses at the trial as to whether any operation other than opening and closing of the skin of his patients was even undertaken although he was known to keep a small herd of goats near his hospital. Further doubt was also expressed concerning the authenticity of a diploma which he exhibited purporting graduation from an European medical school. This summary brings our story up to his recent campaign for governor of the state which has culminated within the past two weeks in such a political upset that Kansas now boasts a new political machine organized by Brinkley’s supporters, known as “The National Free Men’s Association,” which according to C. K. Hank, henchman for Brinkley, will rapidly become a significant factor in national politics. Are we to assume that Brinkley aspires to national honors, possibly the Presidency? Surely P. T. Barnum was right but modest in his estimate of the numbers.

A PRIMER ON FRACTURES

The subject of simple fractures has always been important to the practicing physician. In today’s highly industrialized and automotive era, the incidence of fractures is increasing. With the introduction of the x-ray, the opportunity for correct treatment is generally recognized. Since the Committee on Scientific Exhibit of the American Medical Association has observed, during the past four sessions, an unusual interest in the several booths offering demonstrations of the treatment of fractures, it has encouraged the publication by the association of a hand-book on this subject. Such a book was authorized and a committee consisting of Dr. Nathaniel Allison, Dr. William Darrach, Dr. Kellogg Speed, was appointed. Their final report has been published in book form under the title “Illustrated Primer on Fractures,” and the volume is procurable through the offices of the American Medical Association at \$1.00 each.

The committee stresses that this volume is not intended to standardize the treatment of fractures

but rather to suggest what, in the opinion of the cooperative committee on fractures, constitutes acceptable methods of treatment. This volume should prove of tremendous aid to the general practitioner, the industrial surgeon and the orthopedic surgeon, and because of its nominal price receive hearty reception by the profession.

A technical review of the volume will appear in the Book Review section of the JOURNAL at a later date.

MOTION PICTURES IN MEDICAL EDUCATION

The value of motion pictures for medical instruction is gradually becoming more appreciated. For the student they can never replace experience gained from personal contact with disease, nor can they supplant the present well established methods of teaching medicine. But as an adjunct to the methods in vogue at present, by facilitating the instruction, conserving the time of instructors and students, and by economy of materials, they are of inestimable value. Naturally such statements presuppose high grade production. Accuracy as to scientific detail, good cinematographic technique, and the best of photographic quality are primary requisites. With these qualities incorporated motion pictures acquire considerable value in all branches of medical science.

For the medical student and the postgraduate student motion pictures produced primarily for lecture purposes can be used with the greatest success. They have the advantage over the usual lectures that innumerable repetitions are possible permitting the student to study the subject until he has acquired a thorough understanding of the facts presented. Furthermore most of us are visual minded with the result that by this method of presentation the subject matter can be digested and assimilated more rapidly.

From the surgical standpoint, the motion picture can bring to the student and profession at large the work of the outstanding surgeons. Every one will admit the limitations of the motion picture for operative demonstration, and no one will presume to claim that surgery, as such, can be taught by motion pictures; but motion pictures of certain operations, carefully selected with regard to their adaptability to photography, can demonstrate successfully many of the fundamentals of surgical technique as practiced by leading surgeons. Comparison of differences in the details and mechanics involved can serve as an introduction to the beginner, and leads to a broader and more comprehensive understanding of the subject for the more advanced student. By this method the best work can be available to all at present and in the future, and aside from purely historical and

sentimental considerations, such records will have a very practical value for posterity.

For physiologic and pathologic demonstrations, the motion picture is most practical. An experiment once satisfactorily performed and photographed endures for all time, making further repetition unnecessary. Motion pictures of such experiments present the essential features in a minimal amount of time, and, for instructional purposes, eliminate the uncertainty coincident with any experimental demonstration. Without any preliminary laboratory preparation students can see the experiment at any time and as often as desired, to study it to their utmost satisfaction. These features are a distinct advantage to the student as well as the instructor. In addition there results a tremendous economy in time and material. By the skillful use of carefully prepared animated drawings many physiologic processes and pathologic reactions, not readily discernible, can be graphically shown. Many of the more delicate reactions, demonstrable only to individuals or small groups with the greatest difficulty, can be readily shown and easily understood. Phases of this work which do not lend themselves well to actual photography can also be presented by such drawings, making the subject complete in all details.

In microscopic work for instruction and research purposes, microcinematography has unlimited possibilities. The introduction of the microscope opened vast unknown fields to exploration. The moving picture camera, applied to the eye piece of the microscope, advances such exploration by making possible a study and analysis of the motion of microscopic life. By the stop motion camera, or the popularly known slow motion picture, the development, growth, and life processes of microscopic life can be photographed and studied. Whereas formerly the scientist spent hours and days constantly at the microscope to describe phenomena occurring on the microscope stage, the motion picture camera, with suitable mechanical devices, can not only see the processes as they occur, but gives a permanent record which all can see, a record available for all time. The value of such an advance in the field of research can readily be appreciated. For the investigator many tedious hours at the microscope are eliminated. There results an increased accuracy due to minimizing the human element, always subject to error. The investigator can repeat his experiment before his own eyes and the eyes of others innumerable times without all the difficulties of actually repeating the experiment. There is available a permanent record. For the student such records present facts which formerly he

could not visualize except through his imagination, stimulated by lengthy descriptions. As applied to bacteriology, parasitology, embryology, and allied subjects, such films may be considered treasures.

Appreciating the value of motion pictures for medical instruction, whether for the student or postgraduate, Eastman Teaching Films, Inc., in collaboration with the American College of Surgeons, has undertaken productions along the lines described. Improved technique, improvement of subject content, and careful scientific supervision combine to make these films pre-eminent in the field of medical motion pictures. It is the determination of their proper application which, to a large extent, governs the production of Eastman Medical Films.

A JOURNEY TO SPAIN

PART III

OTIS WOLFE, M.D., Marshalltown

One could spend weeks exploring the historical points of interest in the old walled city of Seville. Its history would make volumes of interesting reading. Here one can yet see glimpses of the lavish splendor of ancient Spain. During the numerous religious festivals, especially during Easter, the populace prides themselves on re-enacting anew the past glories of Seville.

As one travels around Spain, one is impressed with the large amount of denuded soil and waste land. Except around Barcelona, the hill and mountain sides have few trees. Madrid is located on a plateau that is barren and denuded of all vegetation. A couple of centuries ago, it was heavily forested. The trees were cut down for building and not replaced. Soil wash and erosion have ruined the land and left it little better than a desert. We should reap a lesson from this and conserve our forests.

Madrid, like Barcelona, is very modern. Its medical men are progressive and of equal ability to those of other well known European cities. Its hospitals are similar to those of Barcelona. I had the pleasure of visiting with one of the leaders in ophthalmology, Dr. Manuel Marquez, Clinical Professor of Ophthalmology, University of Madrid.

When I went on to Paris, Professor Barraquer gave me a letter of introduction to his intimate friend, Dr. Morax of Paris, dean of French ophthalmologists. He must have asked him to do considerable for me, judging from the royal way I was received and treated. He was exceedingly gracious and solicitous. He personally introduced

me at the different hospitals and asked that they take care of me as his guest. I was overwhelmed by the attention I received. Most of the prominent eye men of Paris are former assistants of Dr. Morax.

I was very much interested in the excellent tear sac operation of Dr. Dupuy Dutemps at the Rothschild's Foundation Eye Hospital. It has been ably described in an article by Dr. Ellett of Memphis. Dr. Mawas has a new and inexpensive slit lamp that is practical and very easily manipulated.

Dr. Magitot at Hospital Tenon demonstrated quite a number of cases of detached retina on which he had successfully performed the Gonin technique.

Dr. Poulard of Hospital Lariboisiere demonstrated a new technique of tear sac dilatation by means of flexible bougies and some interesting intracapsular cataract extractions. I was very much interested and pleased to find the leading Paris eye surgeons had discarded the old classic extracapsular cataract operation and were removing the cataract intracapsularly or removing the capsule immediately after the extraction. Dr. Elsching of Prague, who is conceded to be one of the most skilled operators in Europe, does an intracapsular extraction with forceps and expression.

I was privileged to see the elder Dr. Kalt of Paris perform a number of his forceps extractions. It is a good technique for a skilled operator. The Barraquer technique in the hands of surgeons equally skilled will tear fewer capsules. This alone is an exceedingly strong argument in favor of the Barraquer extraction.

Dr. Bailliart, at the Hospital Saint Louis, has a very large and excellent clinic. This old hospital dates back to the time of Louis XIV and is exceedingly interesting. Dr. Bailliart's work on the retinal circulation is well known to all ophthalmologists.

Drs. Bailliart and Magitot say that "increased tension may be one thing and glaucoma another;" that "serological tests for lues in third stage and inherited types, particularly the latter, are unreliable and that negative tests mean nothing;" and that "clinical symptoms and a therapeutic diagnosis by the administration of increasing doses of mixed treatment are of greatest diagnostic value." They certainly should know as they see an enormous number of cases. This scourge of mankind has been most prevalent in France and very active measures are now being taken to control it.

The eye hospitals of France are conducted mostly by the state. Staff positions and promotions are attained much like those in the army.

The medical profession has surrendered its independence to the state and to hospitals. We American physicians should take warning before it is too late. We are allowing the same thing to slowly and insidiously creep into our heretofore independent professional life.

I was in London only a few days but was privileged to attend the Fiftieth Annual Congress of the Ophthalmological Society of the United Kingdom held in the building of the Royal Society of Medicine. Many famous European ophthalmologists were guests at the meeting. I saw several live rabbits with clear transparent corneas that had been grafted from the eyes of other rabbits. I had a good visit with Colonel Smith of India and heard him discuss his famous Hindu intracapsular extraction. Mr. G. F. Alexander in a paper on "Discission of After Cataract," said before the society, "Those who do not remove the cataract intracapsularly must concede that they are doing a second best way."

The Society banquet was given at Fishmongers Hall, London Bridge. This is an elaborate palace filled with coats of arms, shields, gorgeous paintings and mementoes of past illustrious members. The dinner was conducted with much ceremony and exactness. It was formal to the nth degree. When an Englishman is formal, he is formal. Dr. Parker of Detroit, Dr. de Schweinitz of Philadelphia and myself were the only Americans present. I went as a guest of Dr. and Mrs. Juler, and enjoyed myself exceedingly. They were very gracious hosts. I learned to like our English cousins very much. I am going to arrange to spend more time in London in the not distant future.

Moorfields Eye Hospital is the mecca for all visiting eye men in England. It has given the world many leaders in ophthalmology. The staff are exceedingly courteous and gracious in showing everything possible. They are, however, ultra-conservative in all their surgery. That is typical of the English. Precedent and custom govern every action. Sir Herbert Parsons and Dr. Juler demonstrated some interesting surgical procedures.

I spent several fascinating hours with Colonel Elliott of India and England and watched him operate several cases. He is a man of vast experience and great talents but is especially famous for his glaucoma work. I spent several evening hours with him discussing eye problems. He was most gracious and his discourses were fascinating to me. He emphasized the advisability of not waiting too long to operate on cataract in the first eye because the other eye was good.

I managed to get a hurried trip through the Tower of London. I was told to go to a certain

guide. I tipped him liberally and saw enough and was told enough fascinating history to fill a book.

I returned home on the elegant Aquitania and had a splendid voyage. I was invited by the purser to act as chairman at the concert given for the benefit of the "Seaman's Aid Fund." The program was largely made up of professional artists who were traveling to America. A good sum was collected for this worthy charity. I was privileged to have Dr. de Schweinitz returning on the same boat. The hours I spent with this distinguished teacher will be counted as some of the most valuable of my professional life. They alone were a liberal post-graduate course. I shall never forget some of his interesting observations on varied ophthalmic problems.

We had a very smooth passage of the north Atlantic but the New York harbor and the Statue of Liberty were the most welcome sights of my trip. I saluted her as we passed and felt proud, after all, that I was an American. There is no country like America. I am in favor of the most stringent immigration laws to keep the hordes from southern Europe from gravitating to our cities. The finest thing about going away is getting home.

BANTING MEDICAL INSTITUTE DEDICATED

As a mark of esteem, and in recognition of his services to mankind, the University of Toronto dedicated on September 29th, a new research building to be known as the Banting Medical Institute in honor of Prof. Frederick Grant Banting, who announced his discovery of insulin to the medical world in 1922. Sir Berkeley Moynihan of Leeds, president of the Royal College of Surgeons, delivered the dedicatory address, in which he stated: "His memorial is the gratitude in the hearts of millions of (diabetic) people who owe their lives to Dr. Banting. Am I not right, when I add, he wears with becoming humility the crown of immortality?"

Dr. Banting (jointly with Professor MacLeod) was recipient of the Nobel Prize in medicine in 1923, for his original work in diabetes. He is Professor of Medical Research in the Medical School of the University of Toronto.

UNITED STATES CIVIL SERVICE EXAMINATIONS

The United States Civil Service Commission announces the following named open competitive examinations:

Social Worker (Psychiatric) Junior Social Worker

Applications for social worker (psychiatric) and junior social worker will be rated as received by the U. S. Civil Service Commission at Washington, D. C., until December 30, 1930.

The entrance salary for social worker (psychia-

tric) is \$2,000 a year; for junior social worker it is \$1,800 a year.

These examinations are to fill vacancies in Veterans' Bureau hospitals.

Competitors will not be required to report for examination at any place, but will be rated on their education, training, and experience, and on a thesis or publication.

The duties of the appointee will be to investigate history and environmental conditions of patients; to analyze and submit data to the physician to aid him in arriving at a definite diagnosis and in outlining a course of treatment; to consider, report upon, and treat the social environment to which a convalescent patient may go or be expected to go.

Certain specified education and experience is required.

Full information may be obtained from the United States Civil Service Commission, Washington, D. C., or from the Secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city.

ANTI-RACHITIC COW'S MILK

A discovery which when properly applied should go a long way toward eliminating rickets in children and the consequent bow legs, soft teeth and other maladies caused by malnutrition has just been made by Dr. H. Steenbock, E. B. Hart and Flora Hanning at the Wisconsin Agricultural Experimental Station, at Madison. These researchers found that yeast which had been irradiated with ultra violet rays was far superior to cod liver oil for making cow's milk anti-rachitic.

The yeast was given to cows in their diet as part of a series of experiments after it had been found that babies fed on ordinary cow's milk frequently contracted rickets. Dr. Steenbock and his associates are enthusiastic over the results and see in them a means of materially improving child health.

First the researchers tried giving the cows doses of cod liver oil that had been radiated. It was found to be unsatisfactory. When it was fed in large amounts it lowered the secretion of butter fats. Fed in small amounts, it produced little, if any, effect on an anti-rachitic nature. The best results were obtained from irradiated yeast. Two hundred grams were fed daily to the cattle which produced thirty to forty pounds of milk of a greatly increased vitamin D content.

Even a diet of only fifty grams of the yeast gave the milk enough Vitamin D to make the drink highly anti-rachitic. In this way one of the deficiencies of cow's milk as a total diet can be corrected in a practical way at a cost of only a fraction of a cent a quart. Also the amount of vitamin content can be controlled by feeding a standardized yeast preparation in accordance with the milk production. The application of irradiated yeast for human consumption still remains to be worked out and its benefits, if any are found, balanced against those of irradiated cod liver oil or olive oils.

Speakers Bureau Activities

Post-graduate Work

When this issue of the JOURNAL reaches you, the first real project of the Speakers Bureau will be in full swing. During the first week in December, extension courses were opened in five places, making it possible for physicians in neighboring vicinities to do post-graduate work. The cooperation of the State University of Iowa with the State Medical Society gives this unusual opportunity to Iowa physicians. The University outlined a number of courses which faculty members of the College of Medicine were willing to give, if a sufficient enrollment would be provided. The five towns which evidenced the most interest at this time were Waverly, Fort Dodge, Carroll, Des Moines and Oskaloosa. The courses chosen this year were the lectures on Obstetrics by Dr. E. D. Plass, head of the Department of Obstetrics, and a course on Cardio-vascular diseases under Dr. Fred Smith, head of the Department of Internal Medicine.

The enthusiasm with which the physicians have registered for these courses is merely another indication of the progressive spirit of the medical profession in Iowa. Doctors are driving many miles to take advantage of this opportunity to advance themselves professionally. The members of the Bremer County Medical Society enrolled one hundred per cent to support this enterprise.

In order to reach the greatest number at least expense, a route was planned to include a circuit of five centers. These courses began on December 1 at Waverly and the other towns followed on successive days. The same schedule is followed for a period of ten weeks. Two hours each week are devoted to each course, making a total of forty hours of intensive study. Upon the completion of the courses, examinations may be taken and certificates issued by the University to those qualifying.

In order to get these courses started at once, the Bureau made arrangements for only one circuit. The Committee realize, however, that many

other Iowa physicians are eager to have this privilege of keeping abreast of the times, and they will therefore be glad to schedule a circuit of extension work for other sections of the state that ask for such service.

Program Services

Medical programs for 1931 society meetings are now in the making. This is just the time to call on the Speakers Bureau for assistance. Entire programs of a diversified nature, whether for a single session or all day will be supplied through the Bureau and the numbers on the program will be arranged to meet the wishes of the county or district society requesting the service. We have

a list of members who have signified their willingness to present scientific papers they have prepared; we can put on clinics of various types—heart and lung, diabetes, orthopedic, skin, cancer, and others; or we can offer unified symposia.

Through the kindness of Dr. T. F. Thornton and Dr. J. L. Kestel, of Waterloo, the Bureau is able to offer a splendidly prepared program on kidney diseases or on the malfunctioning of the thyroid secretions. Another group from Des Moines has also cooper-

ated with us and is ready to discuss medical insurance—Mr. Walter St. John, Dr. Martin Olson, and Dr. Francis R. Holbrook, from the agent's, the medical examiner's, and the practitioner's point of view, respectively.

It is hoped that other medical centers throughout the state will show the same fine spirit of cooperation that these two groups have and that through their efforts the Bureau will have a number of such programs to offer.

In addition we have on file a large number of interesting, up-to-date films on medical and surgical subjects that we can book for you through this office. All requests for assistance or for more detailed information will be gladly received and taken care of. Address all inquiries to: Speakers Bureau, 1122 Bankers Trust Bldg., Des Moines, Iowa.

November Placements

Parent-Teachers Association, Norwalk, Iowa. November 12.

L. F. HILL, M.D., Des Moines.

Y's Men's Club, Des Moines, Iowa. November 20.

FRANK ELY, M.D., Des Moines—The Value of Social Suppression.

Four County Medical Society, Cherokee, Iowa. November 20.

CHANNING SMITH, M.D., Granger—Medical Economics.

Henry County Medical Society, Mount Pleasant, Iowa. November 28.

LEE F. HILL, M.D., Des Moines—Childhood Tuberculosis.

JOHN H. PECK, M.D., Des Moines—The Problem of Tuberculosis.

D. J. GLOMSET, M.D., Des Moines—Rheumatic Heart Disease.

WALTER L. BIERRING, M.D., Des Moines—The Coronary Problem in Heart Disease.

Lions Club Meeting, Boone Iowa, December 2.

A. A. SCHULTZ, M.D., Fort Dodge.

HELP US MAKE THIS LIST GROW!

SOCIETY PROCEEDINGS

Carroll County

Wednesday, November 5, the Carroll County Medical Society was host to physicians from Audubon, Crawford, Greene and Sac counties when over thirty physicians attended a medical meeting in Carroll. After a six-thirty banquet, the following scientific papers were presented: Sterility in the Female, Lawrence D. Smith, M.D., and Sterility in the Male, A. G. Fleischman, M.D., both of Des Moines.

Walter A. Anneberg, M.D., Sec'y.

Cerro Gordo County

The Cerro Gordo County Medical Society held its regular meeting Tuesday, November 18, at the Eadmar Hotel. A brief business meeting followed a six-thirty dinner. The clinical meeting was conducted by C. S. O'Brien, M.D., head of the ophthalmological department of the University of Iowa, and he gave a very interesting and complete discussion of Transient Blindness.

T. E. Davidson, M.D., Sec'y.

Decatur County

The Decatur County Medical Society met in Leon, November 21, and the following program was presented: Clinical Pathological Conference, Julius S. Weingart, M.D., of Des Moines; Gynecology with Therapy, Caryl Potter, M.D., St. Joseph; Medical Economics, Channing G. Smith, M.D., Granger, president-elect of the Iowa State Medical Society.

Harrison County

The regular meeting of the Harrison County Medical Society was held at Logan, Friday, November 14, with the following papers presented: Sinusitis, H. N. Anderson, M.D., of Woodbine; Malnutrition, C. S. Kennedy, M.D., of Logan; Metabolism, S. M. Clark, M.D., of Woodbine; Osteomyelitis, J. T. Slatery, M.D., of Dunlap. F. H. Hanson, M.D., of Magnolia gave a report on the Interstate Post Graduate Medical Assembly held recently at Minneapolis.

Henry County

The members of the Henry County Medical Society were guests of the nurses at a six o'clock dinner served at the Memorial Hospital in Mt. Pleasant, Thursday, October 30. The following program was presented by two Washington physicians: Eclampsia, Charles Wm. McLaughlin, M.D., and Quinsy, E. E. Stutsman, M.D.

Linn County

Logan Clendening, M.D., of Kansas City, was the speaker of the evening at the regular meeting of the Linn County Medical Society held Thursday, November 13. Dr. Clendening took as his subject, Pleural Fluids.

Louisa County

The Louisa County Medical Society and Auxiliary held their regular monthly meeting Thursday, November 13. A banquet was served after which Attorney E. R. Hicklin spoke on The Relation of the Physician to the Law.

Marion County

Members of the Marion County Medical Society met Tuesday, November 25, for a dinner meeting at which they discussed matters in connection with the county contract for care of the indigent sick.

Marshall County

Members of the Marshall County Medical Society met at the Elmwood Country Club, Tuesday, November 4. After a duck dinner, Harold C. Habein, M.D., and V. S. Counseller, M.D., both of the Mayo Clinic, Rochester, addressed the gathering.

Washington County

The regular monthly meeting of the Washington County Medical Society was held Tuesday, November 4, at the Nurses' Home, with F. J. Rohner, M.D., of Iowa City, presenting a paper on Pernicious Anemia.

Webster County

Tuesday, November 18, the Webster County Medical Society held its monthly meeting at St. Joseph's Mercy Hospital. The speakers of the evening were Richard B. Hullsiek, M.D., who gave a paper on Hematuria, and Harold E. Hullsiek, M.D., who read a paper on Benign Polyps of the Colon and Their Relation to Malignancy. Both speakers are St. Paul physicians. The last paper was well illustrated by slides and x-ray plates, and both were very practical, instructive and very much worthwhile. Following the papers there was a short discussion.

John C. Shrader, M.D., Sec'y.

Woodbury County

The November meeting of the Woodbury County Medical Society was held at the Elks Club, Monday evening, November 24. Clifford Jones, M.D., spoke on Mental Aspects of Tuberculosis. Discussion of this paper was opened by J. E. Dvorak, M.D. Robert Knott, M.D., presented Periarterial Sympathectomy, discussion of which was opened by P. E. Sawyer.

Roscoe Jepson, M.D., Sec'y.

Botna Valley Medical Society

Members of the Botna Valley Medical Society met at noon, Friday, November 14, for a luncheon and meeting at the Calumet Hotel in Atlantic. The scientific program was as follows: An Emergency Substitute for Blood Transfusion, J. E. Summers, M.D., of Omaha; Degrees of Emergency in Acute

Abdominal Surgical Symptoms, Donald Macrae, Jr., M.D., of Council Bluffs; Fractures of the Neck of the Femur, Intracapsular and Extracapsular, W. Eugene Wolcott, M.D., of Des Moines. At the business session, the following officers were elected for 1931: Dr. A. M. Pedersen of Avoca, president, and Dr. H. A. Johnson of Atlantic, vice president. Dr. K. L. Thompson of Oakland was re-elected secretary and treasurer.

Iowa X-Ray Club

Drs. O. W. Britt and J. L. Kestel of Waterloo, were hosts to the Iowa X-Ray Club at an all day meeting held Thursday, November 6. The morning session was devoted to a discussion of case reports. After a noon luncheon served at the Hotel President, Harry Weber, M.D., of the x-ray department of the Mayo Clinic at Rochester, and C. H. Warfield, M.D., radiologist at Cook County Hospital, Chicago, gave talks on particular phases of x-ray diagnosis.

Joint Meeting of Five County Societies

Wednesday, November 19, physicians from Buchanan, Clayton, Fayette and Jones counties were guests of the Delaware County Medical Society at an evening dinner and meeting in Manchester. The scientific program was furnished by Norman F. Miller, M.D., of Iowa City, who read a paper on Pelvic Infections, and Morgan J. Foster, M.D., of Cedar Rapids, who gave an address on The Difficulties Encountered in Infant Feeding. Dr. William A. Rohlf, president of the Iowa State Medical Society, was a guest of honor at the meeting.

INTERESTING NEWS

In Brief

A case involving an alleged violation of medical ethics originating in the Chicago Medical Society and one which has received much newspaper publicity, was brought to a conclusion during the month by the action of the Supreme Court in upholding the action of the Chicago Medical Society and the American Medical Association.

Dr. Louis E. Schmidt, a prominent physician in Chicago, was charged with a violation of the medical code having to do with advertising, since an institute operating under the name of the Public Health Institute ran full-page advertisements in Chicago papers, giving Dr. Schmidt's name as one of the officers of the Institute. These advertisements were supposed to attract the attention of individuals suffering from venereal diseases, directing them to one of the three clinics operated by the Institute. Dr. Schmidt advanced as his defense the fact that he was not indulging in personal advertising, and charged that the Chicago Medical Society was using a technicality of the advertising clause in the court to oust him, since "they are fearful that the idea of cheaper service to poor people may spread and cut into their profits." The Supreme Court in upholding the ouster action made clear that they were not passing upon the merits of the case but were ruling entirely upon

the jurisdiction of the two societies to control their members.

An informal movement has been started by Dr. William Gerry Morgan, president of the American Medical Association, to modify the Willis Campbell enforcement act relative to the prescribing of alcoholic beverages by physicians. It is his belief that since 51 per cent of physicians have stated by questionnaire that whisky is absolutely necessary as a therapeutic agent, physicians generally should be allowed free exercise of their scientific judgment in the prescribing and use of alcoholic beverages.

Superintendent of Public Instruction J. W. Studebaker has recently circularized the medical profession of Des Moines, requesting information relative to physically handicapped children who may be eligible for instruction in the new Smouse Opportunity School, made possible by the beneficence of Dr. D. W. Smouse, of Pasadena, California, who for many years was an outstanding physician in this state.

Announcement has been made that the Nobel prize for medicine for 1930, which carries a money grant of \$48,000, has been awarded to Dr. Karl Landsteiner, eminent bacteriologist and pathologist of the Rockefeller Institute for Medical Research in New York. Dr. Landsteiner is credited with valuable and outstanding researches in poliomyelitis and the discovery of blood grouping, so essential to satisfactory blood transfusions.

A radium institute for the treatment of cancer is to be established at Toronto by the Ontario government, according to a recent announcement made by Premier C. Howard Ferguson. The institute will be founded on a cooperative plan, the members of the medical profession providing property and buildings to the amount of \$3,500,000 and the Provincial Government contributing radium to the value of an equal amount.

Announcement has been made that the Waterloo Medical Society has formulated plans for the establishment of a medical library in Waterloo. A resolution approved at the October meeting of the society authorizes the medical library and the appointment of a library committee to proceed with the details necessary for the collection and cataloging of books.

The Chamber of Commerce of Newton is exerting every effort to secure a local federal hospital for the criminally insane. If successful, the project will require the expenditure of \$2,500,000 during the construction of the hospital.

In the requests submitted to Budget Director Oscar Anderson for the biennium ending June 30, 1933, the Iowa Health Department has sought, for extension of services, the amount of \$16,400 for

a maternity and child hygiene bureau and \$4,850 for a public health nursing bureau.

Dr. D. C. Steelsmith, State Health Commissioner, in his official report indicates that for the week ending November 20th, 109 cases of chickenpox were reported, which places this disease at the head of the list of communicable diseases in Iowa.

Col. D. S. Fairchild, son of the late Dr. David S. Fairchild, formerly editor of the Journal of the Iowa State Medical Society, has been transferred from his post in Washington, D. C., to Quarry Heights, Colon, Panama, and will sail soon to begin his duties at that point.

As an added service to its members and to the public, the Des Moines Academy of Medicine and Polk County Medical Society has established and is now operating successfully a Physicians' Exchange, fashioned after similar bureaus in several cities.

Dr. W. A. Rohlf of Waverly, president of the Iowa State Medical Society, purchased the first block of Christmas seals, opening the Iowa Tuberculosis Association's campaign for the sale of 52,500,000 Christmas seals this year.

Through the National Tuberculosis Association, the award of a cup to the healthiest city in the United States is made annually. This year the cup awarded in the class of cities of ten thousand was officially made on November 7th, to Ames, Iowa.

The American College of Surgeons, following an extensive survey of Iowa hospitals, admitted thirty-nine Iowa institutions to their accepted list. The smallest hospital receiving approval of the College was located at Washington, Iowa.

PERSONAL MENTION

Dr. J. J. Deshler celebrated his forty-seventh anniversary of practice at Glidden, October 25th. He is still engaged in active practice.

Dr. H. J. Brackney of Sheldon, has just received notification from the President and Secretary of War that he has been promoted to the rank of lieutenant colonel of the Medical Corps Reserve Section of the regular army.

Dr. Addison C. Page of Des Moines, was elected to the American College of Physicians at a recent meeting of the Board of Regents at Louisville, Kentucky.

Dr. C. O. Epley and family are leaving Spirit Lake for Oklahoma City, Oklahoma, where Dr. Epley has opened an office.

Dr. Andrew H. Woods of Iowa City, addressed a group of two hundred members of the Newton's Woman's Club, and guests, Monday, November 17th, taking as his subject, The Making of Juvenile Delinquents.

Dr. Theodore Scharle, a recent graduate of the Marquette University School of Medicine, is opening offices in Dubuque. He has served his internship at the Mercy Hospital in Davenport.

Dr. A. L. Fink, of Granville, is leaving for Europe, where he is to enter the University of Germany, for extensive studies in advanced medicine. Dr. Edward J. Hotz, formerly of Omaha, is taking care of Dr. Fink's practice in his absence.

Dr. H. J. Gilfillan of Cantril, was honored recently by being made an honorary member of the Alpha Kappa Kappa medical fraternity at the University of Iowa. Dr. Gilfillan has six sons either practicing medicine or preparing to enter the profession, and for this reason was accorded this honorary membership. Dr. William Gilfillan of Pulaski, and Dr. Harold Gilfillan of San Francisco, have received their degrees and are in active practice; Earl, Clarence and Edwin are students in the State University College of Medicine, and Homer is taking pre-medic work in the college of liberal arts.

Dr. R. J. Van Wagenen, formerly of Cleveland, Ohio, has become associated in the practice of medicine with Dr. E. M. Kersten of Fort Dodge, according to an announcement made by Dr. Kersten recently. Dr. Van Wagenen is a graduate of the Creighton University School of Medicine, and has been serving his internship in St. Alexis and St. Anne's Hospitals in Cleveland during the past two years.

Dr. N. T. North has returned to Fairfield after a year's absence during which time he has been taking special post-graduate eye, ear, nose and throat work. He is reopening his office and will take care of a general practice with special reference to that phase of the work.

Drs. Burr Boston and Paul T. O'Keefe of Waterloo, spoke at a recent meeting of the Black Hawk County Reserve Officers' Association on The Medical Corps in Action, and Aviation Medicine, respectively.

Dr. and Mrs. H. B. Paulsen have arrived in Ocheyedan, where Dr. Paulsen has purchased the office and equipment of Dr. J. B. Padgham. The new physician is a graduate of Creighton University School of Medicine and has spent the past year as an interne in a Portland Hospital.

Dr. A. J. Meyer and Dr. F. F. Null of Hawarden, have recently announced the dissolution of their partnership and the purchase of Dr. Meyer's interest in the medical practice of the firm by Dr. Raymond Gregory, son-in-law of Dr. Null. Dr. Gregory is a graduate of the University of Texas and of the medical department of the University of Minnesota, and has spent the past two years as an instructor there.

Dr. R. E. Grant has purchased the equipment and residence of the late Dr. S. C. Ainsworth and has already located in Volga City. Dr. Grant is a graduate of the University of Minnesota College of Medicine, and has served his internship in Detroit and at the St. Mary's Hospital in Kansas City.

MARRIAGES

The marriage of Miss Olga Miller of Norway and Dr. Don S. Challed of Cedar Rapids took place at the home of the bride's parents, Thursday, November 6. Dr. Challed is a graduate of the College of Medicine, State University of Iowa, and for the past two years has been practicing in Cedar Rapids. The couple will be at home there after a motor trip in the east.

DEATH NOTICES

Becker, William Louis, of Dubuque, died November 20 at the age of fifty-eight as the result of a four-year illness. He was graduated in 1900 from the Northwestern University Medical School and had been a member of the Dubuque County Medical Society.

Delahunt, Joseph, of Marathon, died November 11 at the age of seventy after an illness of several months. He was graduated in 1889 from the University of Toronto Faculty of Medicine. At the time of his death he was a member of the Buena Vista County Medical Society.

Holtsclaw, Zachary Taylor, formerly of Larchwood, died at Nampa, Idaho, recently at the age of eighty-three. He was graduated in 1881 from the State University of Iowa College of Medicine and had been a member of the Lyon County Medical Society.

Little, Bayliss M., of Clearfield, died at Clarinda October 27 at the age of forty, after an illness of two years. He was graduated in 1914 from the Vanderbilt University School of Medicine and at the time of his death was a member of the Taylor County Medical Society.

McCord, Elias Sheridan, of Delmar, died in Clinton November 10, at the age of sixty-two, as the result of an attack of pneumonia. He was graduated in 1894 from the Drake University College of Medicine and had been a member of the Clinton County Medical Society.

Redmond, John, of Cedar Rapids, fifty-two years old, was found dead in his bed, November 7. Death is believed to have been caused from heart trouble. He was graduated in 1903 from the Northwestern University Medical School and was a member of the Linn County Medical Society.

Rosenblatt, Fritz, of Council Bluffs, fifty-six years old, died in an Omaha hospital November 15 after a year's illness from heart trouble. He was graduated in 1904 from the State University of Iowa College of Medicine.

DIABETES LEADS IN DISABILITY

Recent legislation provides that veterans of the World War who are at this time disabled as much as twenty-five per cent may receive compensation regardless of whether this disability is the result of injury or disease received during the war. This has led to a marked increase in the activity in the United States Veterans Bureau. Since July 3rd, 3,133 veterans have been examined in the Des Moines

office. It is interesting to note that the leading cause of disability among the war veterans examined under this provision is diabetes, although tuberculosis is an important second cause. It is reported that the Des Moines office has already increased its payments under this provision sixteen per cent.

A FELLOWSHIP IN PSYCHIATRY

The National Committee for Mental Hygiene has recently announced the establishment of a fellowship in psychiatry in order to correct a shortage of adequately trained persons for extramural activity in this specialty. Several fellowships are designed to provide special training for physicians who have had previous hospital training in psychiatry but who wish to prepare themselves for extra work in the field of child guidance, delinquency, education, dependency and industry.

At least one year of training after graduation from a class A medical school in a hospital for mental diseases acceptable to the committee is required. Consideration will be given to applicants under thirty-five years of age only. Applicants accepted for these fellowships will be given approximately one year of training on a rotating service including work in the Boston Psychopathic Hospital, Judge Baker Foundation, Institute for Juvenile Research, and other places of a similar nature. The fellowships carry stipends at the rate of \$2,000 to \$2,500 for the twelve months' period.

Applications can be made at any time to Dr. Frankwood E. Williams, Medical Director, National Committee for Mental Hygiene, 370 Seventh Avenue, New York, N. Y.

UNITED STATES CIVIL SERVICE EXAMINATIONS

The United States Civil Service Commission announces the following named open competitive examinations:

MEDICAL OFFICER ASSOCIATE MEDICAL OFFICER ASSISTANT MEDICAL OFFICER

Applications for medical officer, associate medical officer, and assistant medical officer will be rated as received by the U. S. Civil Service Commission at Washington, D. C., until December 30, 1930.

These examinations are to fill vacancies in the Departmental Service, Veterans' Bureau, Public Health Service, Coast and Geodetic Survey, and Panama Canal Service.

Competitors will not be required to report for examination at any place, but will be rated on their education, training, and experience.

Applicants must have been graduated with a degree of M.D. from a medical school of recognized standing. The requirements of additional education and experience vary according to the grade.

Full information may be obtained from the United States Civil Service Commission, Washington, D. C., or from the Secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

DR. WILLIAM JEPSON, Sioux City

DR. FRANK M. FULLER, Keokuk

DR. ARTHUR D. WOODS, State Center

DR. WALTER L. BIERRING, Des Moines

DR. NORMAN F. MILLER, Iowa City

Dr. Edwin James of Des Moines County

1797—1861

A TRIBUTE

HENRY B. YOUNG, A.M., M.D., Burlington

A reiteration of one or another of the familiar truisms, such as, "A prophet is not without honor save in his own country," or "Nothing like going away from home to get home news," or "No cloud without a silver lining," etc., is not uncommon for summing up some event which has had a logical, although perhaps unexpected, termination; but not often will the two first named be more aptly given expression than upon the relation of my discoveries, incident to a question put to me in Chicago, some weeks since, namely: "What do you know about Dr. Edwin James, a former resident of Des Moines county?"

My answer, that I had never heard of the man was received with some surprise, because it was known that I was a long time resident and must have known the old time doctors. For that same reason I suggested that the meager data submitted to me was faulty as to place, if not in dates; and this suspicion was not abated after I had, in vain, consulted the exhaustive history of the county, compiled in 1915 by the late Judge Antrobus, the burial register of Aspen Grove cemetery, and interviewed certain octogenarians of long residence. But my chance remark about a wild-goose chase for knowledge of an old time doctor who would not take pay for his services, brought this startling response, from a descendant of one of the old families. "That must be Dr. James, I have heard mother speak of his eccentricities; and I, myself, have been in the house that was his, and seen his grave in Rock Springs cemetery." So the mystery was solved. I had solid ground to go on. A brief visit to the house and grave, plus recourse to the Annals of Iowa, the quarterly of the State Historical Bureau, has supplied me with information of sufficient interest it seems to me, to pass on to you, because, as you will see, Dr. James was per-

haps the most distinguished citizen this county ever had, excelling, as he did, in so many lines.

The record follows, necessarily epitomized in consideration of the regular program.

Edwin James, the youngest of thirteen children, was born August 27, 1797, in Weybridge, Addison county, Vermont. That the family was prominent in the community is manifest from the recorded activities of his elders, in church and state, together with a representation of the home, which was still in possession of the direct line one hundred and ten years later. In due time Edwin entered Middlebury College, where he specialized in botany, and was graduated in 1816. Following his graduation he went to Albany to study medicine with his brother, John, a doctor of parts with a background of European training; and in 1820 he was appointed botanist and surgeon of the Major Long expedition to explore the head waters of the Platte River, the eastern slopes of the Rockies, and the course of the Arkansas River back to the Mississippi. On July 13th, of that year, he scaled the supposedly inaccessible summit of Pikes Peak. This feat led Major Long to advise the authorities in Washington that as Zebulon Pike had only seen the mountain from a distance of ten miles the name should be James Peak; and it so appeared for a time on government maps. It was, however, changed back to Pike's Peak on the recommendation of John C. Fremont who named another Mount James Peak. The flora of the mountain slopes he studied assiduously, manifestly a pleasure as well as a duty, and among other interesting things, he found a new species of white pine which he recorded in full, and which bears the name he gave it, *P. Flexilis*, likewise a new species of Columbine, and which is today the state flower of Colorado. In the standard botani-

cal dictionaries there is also a rosaceous plant that bears his name, *Jamesia Americana*.

Misled by Indian guides the expedition followed the Canadian, instead of the Arkansas River, down to Fort Smith, and here he gave to the adjacent mountains the name of Ozarks, as a memorial to a dwindling tribe of Indians.

Upon his return from this expedition he served as an army surgeon, and was sent to such frontier posts as Fort Crawford (Prairie du Chien), Fort Mackinac, and Fort Brady (Detroit). Through his contacts with the Indians at these posts he became proficient in their language, and as a diversion for winter nights, resumed his study of Greek and Hebrew; a combination doubtless explanatory of his translation of the New Testament into Ojibwe idiom, which was published in 1833. Bancroft, the historian, speaks of him as an outstanding authority on Indian life and language.

In 1836, wearied of the red tape, and the pull and haul for desirable locations, he resigned from the army; and with his wife (marriage date unrecorded) decided to seek in the new west a place where he could follow, undisturbed, his predilection for agriculture, horticulture, and forestry. En route to Dubuque, a compulsory detour brought him to the wooded slopes of Rock Creek, in this county, where every prospect so pleased him that he took up 320 acres, built a commodious house of native stone (two stories with attic and basement) and settled down to the life of a recluse. Here his only child, a son, was born in 1838, and here he spent the rest of his days. With his few neighbors he was friendly; would wait upon them in illness, refusing compensation therefor, but otherwise discouraging intimacy. One reason for his unsociability was later obtained in the discovery of a secret chamber in the basement of his house, and for which preceding events justified the name of Underground Railway Station. One of these events was the one attempt here to enforce the "fugitive slave law," and in it Dr. James played a leading role. He was arrested with the run-away nigger in his buggy. After a hectic trial the writ was quashed; and Dr. James at once saw to it that the run-away had a considerable lift on his way to freedom. He was thus seen as a militant abolitionist.

His death occurred October 28, 1861, as the result of a fall, complicated by a crushing weight on his chest.

His remains, with those of his wife, lie in a neglected grave, the marker toppling to a fall, and it would seem fitting that this society, as a tribute to a physician, who was also a scientist, explorer, philologist, and defender of the oppressed, should

undertake the restoration of that small part of God's acre.

(A motion to that effect prevailed.)

Editor's Note: This belated tribute to the memory of a distinguished citizen, the late Doctor Edwin James, was presented at the October, 1930, meeting of the Des Moines County Medical Society.

UNITED STATES CIVIL SERVICE EXAMINATIONS

The United States Civil Service Commission announces the following named open competitive examinations:

Chief Nurse (Indian Service).

Head Nurse (Indian Service).

Graduate Nurse (Various Services).

Graduate Nurse, visiting duty (various services).

Graduate Nurse, junior grade (various services).

Applications for chief nurse (Indian Service), head nurse (Indian Service), graduate nurse (various services), graduate nurse, visiting duty (various services), graduate nurse, junior grade (various services), will be rated as received by the United States Civil Service Commission at Washington, D. C., until December 30, 1930.

These examinations are to fill vacancies in the Departmental Service, Washington, D. C., the Veterans' Bureau, the Public Health Service, and the Indian Service.

Competitors will not be required to report for examination at any place, but will be rated on their education, training, and experience.

Full information may be obtained from the United States Civil Service Commission, Washington, D. C., or from the Secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city.

NEW AND NONOFFICIAL REMEDIES

Abbott Laboratories

Gold Sodium Thiosulphate-Abbott

Eli Lilly & Co.

Erysipelas Antistreptococcic Serum-Lilly (Concentrated Globulin)

Medical Arts Laboratory, Inc.

Antirabic Vaccine, Semple Method

National Drug Co.

Antipneumococcic Serum, Type I

Ointment Scarlet Red Biebrich 8 Per Cent

Typhoid-Paratyphoid A Vaccine

Parke, Davis & Co.

Ventriculin

Richards Pharmacal Co., Inc.

Richards Psyllium Seed

E. R. Squibb & Sons

Diphtheria Toxoid-Squibb, twenty 1 cc. ampule packages

Diphtheria Toxoid-Squibb, two 1 cc. ampule packages

Normal Horse Serum, one 50 cc. vial package

Ragweed Pollen Allergen Solution-Squibb (3 vial treatment package)

Timothy Pollen Allergen Solution-Squibb (3 vial treatment package)

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

BURNS—The Types, Pathology, and Management.—By George T. Pack, B.S., M.D.—Formerly Professor of Pathology and Lecturer in Minor Surgery, The School of Medicine, University of Alabama—and A. Hobson Davis, B.S., M.D., Instructor in Pathology, University of Alabama.—With 60 illustrations.—Philadelphia and London.—J. B. Lippincott Company.—Price, \$6.00.

***CLINICAL FEATURES OF HEART DISEASE**—By Leroy Crummer, M.D.—Second edition, revised and enlarged.—Paul B. Hoeber Company, New York City.—Price, \$4.00.

***THE COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION FOR 1929**—Volume XXI—Edited by Mrs. M. H. Mellich, Richard M. Hewitt, M.D., and Mildred A. Felker, B.S.—Octavo volume of 1,197 pages with 279 illustrations.—Philadelphia and London.—W. B. Saunders Company, 1930.—Cloth, \$13.00, net.

***DISEASES OF THE SKIN**—A textbook for practitioners and students. By George Clinton Andrews, AB., M.D., Associate Professor of Dermatology, College of Physicians and Surgeons, Columbia University; Consulting Dermatologist and Syphilologist to Tarrytown Hospital; to St. John's Hospital, Yonkers; to Grassland's Hospital; and to the Broad Street Hospital, New York City. One thousand and ninety-one pages with 988 illustrations. Philadelphia and London: W. B. Saunders Company, 1930. Cloth, \$12.00 net.

***THE DOCTOR IN COURT**—By Edward Huntington Williams, M.D.—A book of experiences of the expert medical witness.—With an appendix on expert testimony by Charles W. Fricke, Judge of the Superior Court, Los Angeles County, Published September, 1929.—Williams & Wilkins Company, Baltimore.

*Review appears in this issue.

***MANUAL OF THE DISEASES OF THE EYE**—For Students and General Practitioners—By Charles H. May, M. D.—Thirteenth Edition, Revised.—With 374 original illustrations, including 23 plates, with 73 colored figures.—William Wood and Company, New York, 1930.—Price, \$4.00, net.

MEDICAL EDUCATION AND RELATED PROBLEMS IN EUROPE—Commission on Medical Education.—April, 1930.

***OUTLINE IN OBSTETRICS FOR NURSES**—F. W. Rice, M.D.—Fifty-six illustrations. Price \$2.00 net. C. V. Mosby Company, St. Louis, 1930.

***PHYSICAL DIAGNOSIS**—By Richard C. Cabot, M.D.—Massachusetts General Hospital, Boston, May, 1930.—Tenth Edition, revised and enlarged, with six plates and 279 figures in the text.—(The more important new matter introduced relates to coronary disease, electrocardiography, cancer of the lung, cardiac asthma, toxic hepatitis and encephalitis lethargica.)—Publishers, William Wood & Company, New York.—Price, \$5.00, net.

RADIUM IN GENERAL PRACTICE—By A. James Larkin, M.D., D.N.B.—Illustrated.—Paul B. Hoeber, Inc., New York.—Price, \$6.00.

***TEXTBOOK OF GYNECOLOGY**—By Arthur H. Curtis, M.D., Professor and Head of the Department of Obstetrics and Gynecology, Northwestern University Medical School; Chief of the Gynecological Service, Passavant Memorial Hospital, Chicago. 380 pages with 222 original illustrations. Philadelphia and London: W. B. Saunders Company, 1930. Cloth, 75.00.

***TROPICAL MEDICINE**—In the United States. By Alfred C. Reed, M.D., Professor of Tropical Medicine, the Pacific Institute of Tropical Medicine within the George Williams Hopper Foundation for Medical Research of the University of California. Sixty illustrations. Philadelphia and London: J. B. Lippincott Company, Price \$6.00. 1930.

BOOK REVIEWS

TEXTBOOK OF GYNECOLOGY

By Arthur H. Curtis, M.D., Professor and Head of the Department of Obstetrics and Gynecology, Northwestern University Medical School; Chief of the Gynecological Service, Passavant Memorial Hospital, Chicago. 380 pages with 222 original illustrations. Philadelphia and London: W. B. Saunders Company, 1930. Cloth, \$5.00.

This text in gynecology while considerably smaller in volume than is usually found nevertheless covers briefly the entire subject.

It is divided into eight sections, each of which are made up of several chapters. Section I deals with infections of the different genital organs, the source, symptoms, and treatment of the different types, both venereal and nonvenereal. Sections II and III discuss new growths of the uterus and ovary, giving the pathology, etiology, symptoms and treatment. Displacements and relaxations are described in Section IV, their causes, symptoms and treatment both medical and surgical. Section V discusses such disturbances of functions as amenorrhea, dysmenorrhea, hemorrhages, sterility and the menopause. Special diseases are grouped under Section VI. These include leucorrhoeas, ectopic pregnancy, fistulas, backache and phlebitis. The lesions and disturbances of the cervix, vagina and vulva are discussed under Section VII. This section also includes such other conditions as are not included in the other sections. Section VIII is made up of special topics such as the relation of the gastro-intestinal and urinary

tracts to gynecology, radio therapy, anesthesia, operative and postoperative care and, reaching over into obstetrics, includes the care and complications of early pregnancy.

The illustrations are not numerous but are original and easily understood.

For the busy physician who wishes a brief, concise text on gynecology this book should prove very satisfactory.

F. W. R.

THE DOCTOR IN COURT

By Edward Huntington Williams, M.D.

A book of experiences of the expert medical witness, invaluable to the physicians who may be called to the stand, and presenting curiously interesting sidelights upon legal and judicial practice. With an appendix on expert testimony by Charles W. Fricke, Judge of the Superior Court, Los Angeles County. Published September, 1929, Williams & Wilkins Co., Baltimore. Price, \$3.00.

This volume prepared by an eminent neurologist and alienist, an expert with years of service as an expert witness, and with many medico-legal volumes to his credit, assures the reader that the volume is authoritative and well worth while. Dr. Williams possesses the happy faculty of presenting facts in a most fascinating narrative form, so that the reader's attention is held through every page of the book. The advice offered by Dr. Williams, both by statement and inference, will prove of great value

to every physician who finds it necessary to appear in court, since the author's wide experience in numerous cases and courts gives him license to speak with authority.

A few of the chapter titles may serve to outline the scope of this treatise. Chapter I, "Technicalities—and More of Them;" Chapter II, "Back-fire Queries;" Chapter VI, "The Medical Expert, Despised of Mortals;" Chapter VIII, "The Expert and His Hire;" Chapter IX, "Mental Quirks of Juries on Medical Subjects;" Chapter XII, "The Doctor and the Jury System;" Chapter XVII, "The Law and the Profits."

A valuable appendix, written by Judge Charles W. Fricke, adds much to the usefulness of the book.

CLINICAL FEATURES OF HEART DISEASE

Leroy Crummer, M.D., Emeritus Professor of Medicine, University of Nebraska. Second edition, revised and enlarged. Price, \$4.00. Paul B. Hoeber Company, New York City.

This volume is the outgrowth of an extensive survey of the author on the classification of heart impairments made while serving as a commissioned officer in the United States army. Under circular number 21, issued by the War Department under date of July 14, 1917, Dr. Crummer established a cardiac clinic at Fort Oglethorpe. During this experience many features of cardiac diagnosis were forcibly impressed upon the author's mind, which he has in turn passed on to the profession in this volume. The book does not conform with the usual textbook presentation, but reports in narrative style the various interpretations to be placed upon the cardiac findings elicited by the several methods of cardiac diagnosis. He has stressed throughout the book the value of diagnostic methods other than the mechanical ones, stating: "The value of this ability (diagnostic) can scarcely be overestimated since under the most favorable circumstances very few patients have time, opportunity, or money for such mechanical examination." Personal methods of argument by which a diagnosis is established and which, for the most part, are not reported in written texts are incorporated in this presentation, since the author believes, "Interpretation of symptoms requires rather more than the knowledge of cardiac pathology." The volume bears our hearty endorsement.

C. B. L.

MANUAL OF THE DISEASES OF THE EYE

For students and general practitioners. Charles M. Hay, M.D. Thirteenth edition, revised. With 374 original illustrations, including 23 plates, with 73 colored figures. William Wood & Company, New York, 1930. Price, \$4.00 net.

The thirteenth edition of this well-known and time honored manual remains unchanged as to form and scope from the previous editions. However, it has undergone sufficient revision to bring the subject matter entirely up to date. Illustrative of its revision is the incorporation of such newer develop-

ments in ophthalmology as the use of the slit lamp. While this subject is but briefly presented sufficient discussion is included to acquaint the reader with the uses and purposes of this method of examination.

The volume continues to be a useful textbook for the teaching of students and will prove a valuable reference volume for any physician doing eye work.

H. J. McC.

PHYSICAL DIAGNOSIS

By Richard C. Cabot, M.D. Massachusetts General Hospital, Boston, May, 1930. Tenth Edition, revised and enlarged, with six plates and 279 figures in the text. Publishers: William Wood & Company, New York. Price, \$5.00 net.

The tenth edition is a revision of the author's former texts on physical diagnosis. Coronary disease, electrocardiography, cancer of the lung, cardiac asthma, toxic hepatitis and encephalitis lethargica are introduced. The text covers physical diagnosis based upon the writer's experience and is well written and well illustrated. The chapter covering the examination of the heart and lungs is especially noteworthy. Where laboratory technique is necessary for examination it has been included, stressing the simplest tests necessary to obtain the desired results. The rest of the volume covers the physical examination of the body from a topographical standpoint. The paper is good, the illustrations well chosen and the text should be a valuable addition to the library of either students or practitioners of medicine and surgery.

D. M. B.

THE COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION FOR 1929, Volume XXI

Edited by Mrs. M. H. Mellish, Richard M. Hewitt, M.D., and Mildred A. Felker, B.S. Octavo, volume of 1197 pages with 279 illustrations. Philadelphia and London: W. B. Saunders Company, 1930. Cloth, \$13.00 net.

To those physicians who are unable to attend medical centers for postgraduate work, such a volume as this Mayo Clinic Collected Papers is indeed welcome. Likewise the busy physician who finds that he must limit his reading will appreciate this volume, since in its ninety papers reported in full, its twenty-three abridged papers and sixty-eight abstracts will be found a summary of the diagnostic and therapeutic advances of the present year. In compiling this volume the editor has attempted to incorporate those papers which would be of greatest value to the greatest number of physicians. One will find formal essays such as "The Doctor and His Patient," and "Nursing and Hospital Costs for the Individual in Moderate Circumstances," by William J. Mayo and technical papers such as "Barbiturates" by John S. Lundy, original research such as "Blood Pressure and Weight" by Howard R. Hartman and David G. Ghrist, "The Results Obtained in the Treatment of Carcinoma and with Radium and Roentgen Rays from 1915 to 1923 Inclusive," by

Harry H. Bowling, Arthur R. Desjardins, Leda J. Stacy, and J. Herbert Bliss, and "Experimental Peptic Ulcer," by James C. McCann. Of universal interest will be the papers dealing with the problems of diagnosis and treatment, such as "Goiter Management of the Poor Surgical Risk," by John de J. Pemberton, "Digitalis in Clinical Medicine," by Frederick A. Willius, "The Selection of Diuretics," by Leonard G. Rowntree and "The Nonspecific Treatment of Neurosyphilis," by Paul A. O'Leary and Louis A. Brunsting. This volume maintains the usual high standard of this publication.

OUTLINE IN OBSTETRICS FOR NURSES

F. W. Rice, M.D. Fifty-six illustrations.

Price \$2.00 net. C. V. Mosby Company, St. Louis, 1930.

This outline has been prepared for the use of student nurses and is remarkably well suited for the purpose intended. The outline follows a logical, orderly presentation of this subject paralleling the general forms used by De Lee and Davis in their text-books. The outline has been in constant use for a period of eleven years by the author and has well outlived the period of experimentation. Student nurses employing this volume can devote their full attention to the lecturer, realizing that the essentials of the subject discussed will be available in this guide for review purposes. Graduate nurses will find the volume of great value in reviewing for licensing examinations, in the teaching of student nurses and as a guide to their practice in obstetrical cases.

The well-chosen cuts will add much towards a correct application of the subjects considered while the blank pages for notes present adequate space for the recording of data which may be supplied from outside sources. At the close of the book is a list of fifty review questions covering the most essential and outstanding subjects in the course. The volume is well indexed.

DISEASES OF THE SKIN

A textbook for practitioners and students. By George Clinton Andrews, A.B., M.D., Associate Professor of Dermatology, College of Physicians and Surgeons, Columbia University; Consulting Dermatologist and Syphilologist to Tarrytown Hospital; to St. John's Hospital, Yonkers; to Grassland's Hospital; and to the Broad Street Hospital, New York City. One thousand and ninety-one pages with 988 illustrations. Philadelphia and London: W. B. Saunders Company, 1930. Cloth, \$12.00 net.

This first edition has been prepared by the author as a text-book for both practitioners and students. He has attempted with marked success to make the treatise complete and in sufficient detail, both in diagnosis and treatment, so that the student may learn the essentials of dermatology and the practitioner be able to properly recognize skin conditions and apply a correct therapy. The subject matter is brought entirely up to date. The first ten chapters, comprising about one-fourth of the page

space, are devoted to such general considerations as the anatomy and physiology of the skin, the etiology and pathology, symptomatology, terminology and basic principles of treatment, with individual chapters discussing roentgen-ray therapy, radium therapy, ultraviolet light and surgical diathermy. The remaining page space, divided into twenty-six chapters, discusses diseases of the skin in etiological grouping. The most recent thought relative to occupational dermatitis and the various diseases due to fungi reflects the modernity of the text. A particularly valuable chapter and one which is frequently neglected in dermatological texts is the one devoted to trophic disturbances, in which the dermatological phase in such diseases as dermatolysis, diabetic gangrene, acromegaly and Raynaud's disease receive consideration. A very complete discussion of the skin manifestation of tularemia is included in the section devoted to the bacterial infections such as leprosy, diphtheria of the skin, glanders, anthrax, etc.

The text matter is well illustrated with 988 well-chosen cuts, most of which are photographic reproductions of typical lesions. An ample bibliography is included in the discussion of each chapter. The volume is well indexed for ready reference. The frequent references to treatment are accompanied by tested prescriptions or detailed treatment where the roentgen-ray or other modalities are employed.

TROPICAL MEDICINE

In the United States. By Alfred C. Reed, M.D., Professor of Tropical Medicine, the Pacific Institute of Tropical Medicine within the George Williams Hopper Foundation for Medical Research of the University of California. Sixty illustrations. Philadelphia and London. J. B. Lippincott Company, Price \$6.00. 1930.

A text dealing with tropical medicine differs from one discussing general medicine in but few essential points. There are certain diseases peculiar to tropical climates and other more usual diseases may have unusual manifestations when acquired in those countries in the hot zones.

With this thought in mind this volume has been prepared outlining the diagnosis and treatment of conditions encountered in the tropics. The author because of an unusual experience is well qualified for such a presentation and the highly illuminating fashion with which he has discussed those diseases uncommon in this climate manifests his skill.

The volume is divided into nine chapters treating respectively, protozoal diseases, spirochetal diseases, bacillary diseases, helminthic disease, diseases of unknown etiology, mycotic diseases, metabolic diseases, arthropod parasites, and the last chapter deals with miscellaneous subjects. Several conditions which are now being accorded considerable interest in this climate such as Malta fever, undulant fever, hookworm disease, tularemia, rat bite fever, and the various forms of malaria are well discussed and add much to the value of the book for Iowa physicians.

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